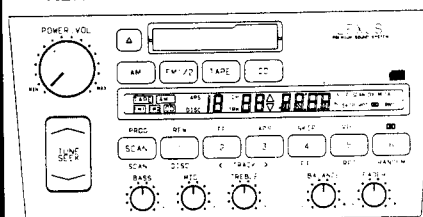


Service Manual



PIONEER®
The future of sound and vision.

• KEH-M9741ZT



7. Sep. 1989
Scheuer

ORDER NO.
CRT 1232

CAR STEREO

KEH-M9741ZT US

KEH-M9741ZT-91 US

KEH-M9741ZT-02 US

KEH-M9741ZT-92 US

KEH-9641ZT US

KEH-9641ZT-91 US

KEH-9641ZT-02 US

KEH-9641ZT-92 US

• These models have been installed in LEXUS LS400.

| Model | Supplementary Model | Part No. | ID No. | Remark |
|----------------|---------------------|-------------|--------|----------|
| KEH-M9741ZT | KEH-M9741ZT-91 | 86120-50040 | P626 | Leather |
| KEH-M9741ZT-02 | KEH-M9741ZT-92 | 86120-50030 | P625 | Moquette |
| KEH-9641ZT | KEH-9641ZT-91 | 86120-50020 | P624 | Leather |
| KEH-9641ZT-02 | KEH-9641ZT-92 | 86120-50010 | P623 | Moquette |

Note:

- See the separate manual CX-156 (CRT-468) for the cassette mechanism description.
- Dolby and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
- Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation.

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FD JUNE 1989 Printed in Japan

- These models are used in combination with following models.

| Car Stereo | CD Player | Amplifier |
|----------------|-------------|-----------|
| KEH-M9741ZT | CDX-M9741ZT | GM-9641ZT |
| KEH-M9741ZT-02 | CDX-M9741ZT | GM-9641ZT |
| KEH-9641ZT | ————— | GM-9641ZT |
| KEH-9641ZT-02 | ————— | GM-9641ZT |

- KEH-M9741ZT-91, KEH-M9741ZT-92, KEH-9641ZT-91 and KEH-9641ZT-92 are the model number of an optional supplementary models.
These are identical to the KEH-M9741ZT, KEH-M9741ZT-02, KEH-9641ZT and KEH-M9641ZT-02 except for the addition of following items.

| | KEH-M9741ZT-91 | KEH-M9741ZT-92 | KEH-9641ZT-91 | KEH-9641ZT-92 |
|------------------|----------------|----------------|---------------|---------------|
| Corton | CHG1628 | CHG1627 | CHG1630 | CHG1629 |
| Contain Box | | | | |
| Styrofoam(Upper) | CHP1157 | CHP1157 | CHP1157 | CHP1157 |
| Styrofoam(Lower) | CHP1158 | CHP1158 | CHP1158 | CHP1158 |
| Polyethylene Bag | | | | |

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1. SPECIFICATIONS

General

Power source 13.2V (10.6—16.0V allowable)

Grounding system Negative type

Dimensions

(Chassis) 178 (W) × 109 (H) × 155 (D) mm
[7 (W) × 4-1/4 (H) × 6-1/8 (D) in.]

(Nose) 226 (W) × 109 (H) × 30 (D) mm
[8-7/8 (W) × 4-1/4 (H) × 1-1/4 (D) in.]

Weight 2.8kg (6.2 lbs)

Amplifier

Maximum power output 20W × 4

Load impedance 4Ω

Tone Controls

(Bass) ±10dB (100Hz)

(Mid) ±10dB (1kHz)

(Treble) ±10dB (10kHz)

Tape player

Tape Compact cassette tape (C30-C90)

Tape speed 4.76 cm/sec. (+0.14 cm/sec., -0.05 cm/sec.)

Wow & flutter Less than 0.15% (WRMS)

Crosstalk More than 40 dB

Stereo separation More than 30 dB

Signal-to-noise ratio

Dolby NR IN More than 45 dB

Dolby NR OUT More than 40 dB

FM tuner

Frequency range 87.9-107.9 MHz

Usable sensitivity 15±6dB μV

Signal-to-noise ratio More than 48 dB

Distortion Less than 1.5%

Stereo separation More than 25 dB

AM tuner

Frequency range 530-1710 kHz

Usable sensitivity 25±6dB μV

Usable selectivity More than 30dB (±9kHz)

Signal-to-noise ratio More than 40 dB

2. CONNECTOR FUNCTION DESCRIPTION

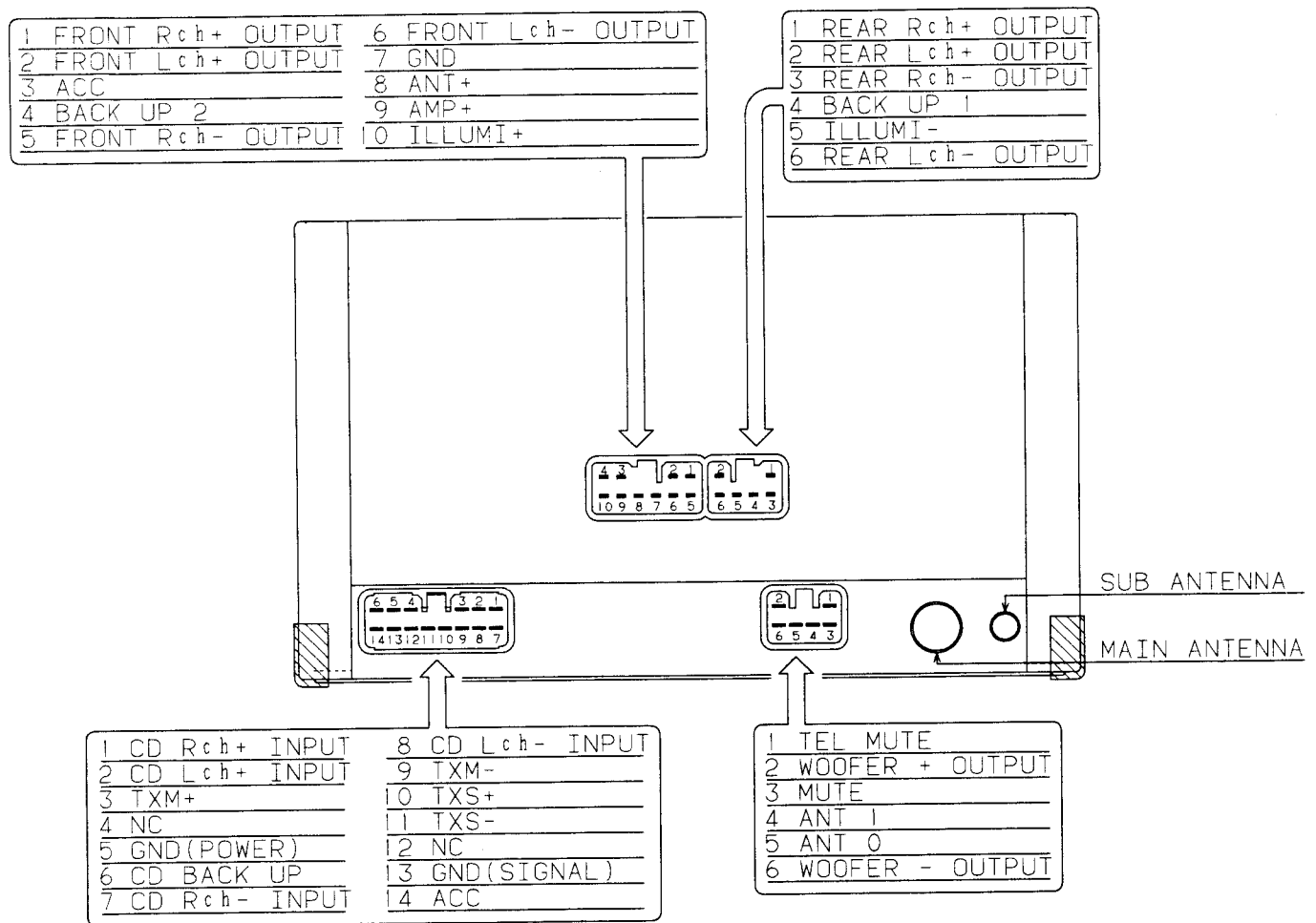


Fig. 1

3. DISASSEMBLY

• Removing the Cover

1. Insert and turn a flat screwdriver to remove the cover.
2. Raise the cover to remove.

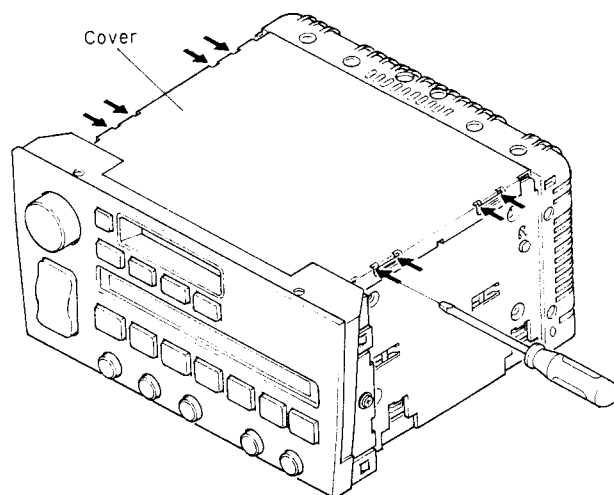


Fig. 2

• Removing the Cassette Mechanism Assy

1. Remove the four screws, and then remove the holder.
2. Disconnect the connector, and then raise the cassette mechanism assy.

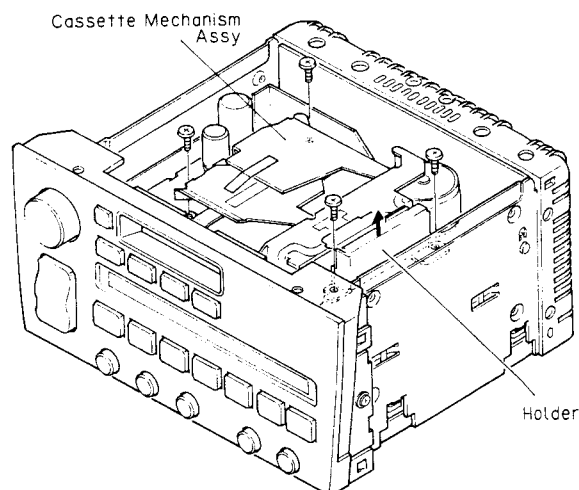


Fig. 3

• Removing the Grille Assy

1. Disconnect the connector, and then remove the two screws A.
2. Disengage the stopper at four locations indicated by arrows.

• Removing the Power Amp Section

1. Remove the four screws B.
2. Disengage the stopper at two locations indicated by arrows.
3. Raise the power amp P.C. board.

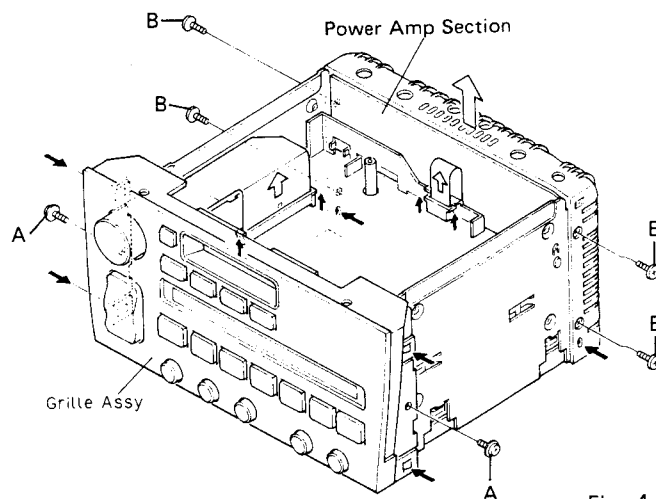


Fig- 4

• Removing the Control Unit

1. Disconnect the two connectors.
2. Remove the four screws.
3. Remove the control unit.

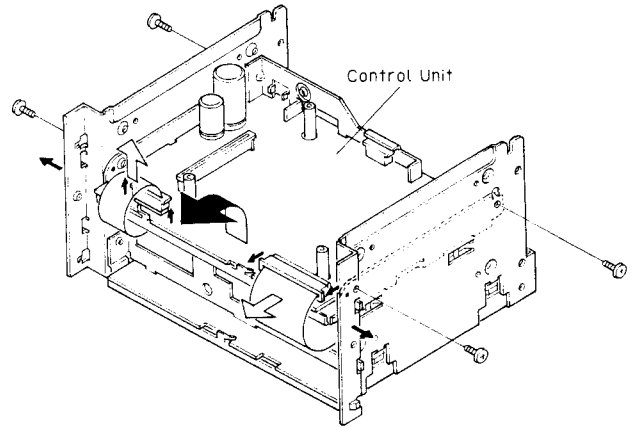


Fig. 5

• Removing the Heat Sink

1. Remove the screw C and four screws D.
2. Remove the heat sink.

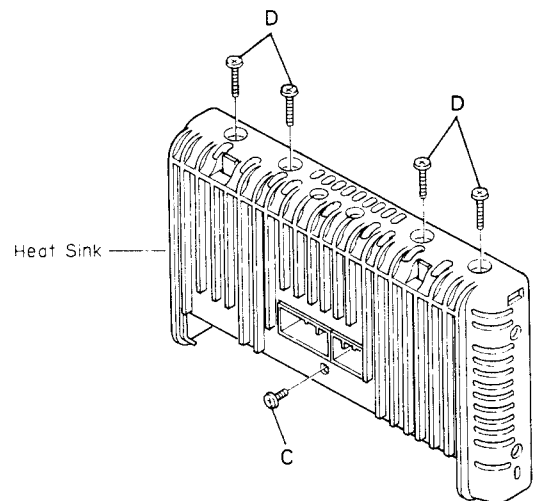


Fig. 6

• Removing the Communication Unit (KEH-M9741ZT, KEH-M9741ZT-02)

1. Disconnect the two connectors.
2. Remove the three screws, and then remove the communication unit.

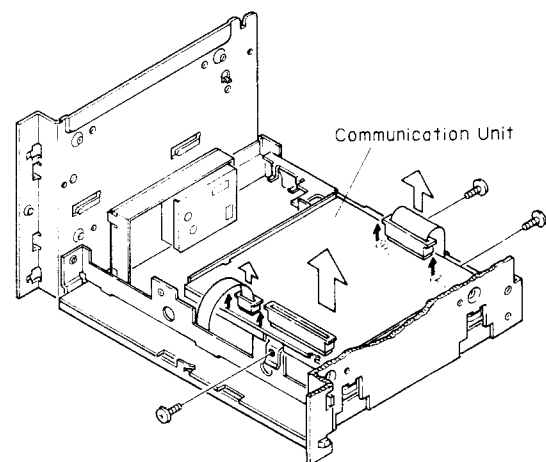


Fig. 7

• Removing the Tuner P.C. Board

1. Remove the two screws, and then remove the side panels.
2. Remove the solder at location indicated by arrow.
3. Straighten the claw, and then remove the tuner P.C. board.

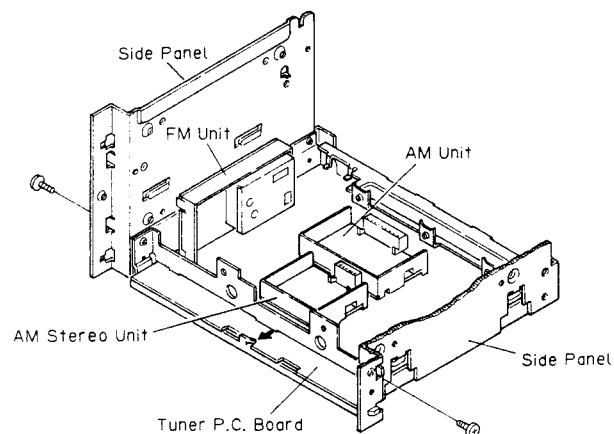


Fig. 8

• Removing the FM Unit, AM Unit and FM Stereo Unit

1. Remove the solder at location indicated by arrows.
2. Straighten the claws.
3. Remove the each units.

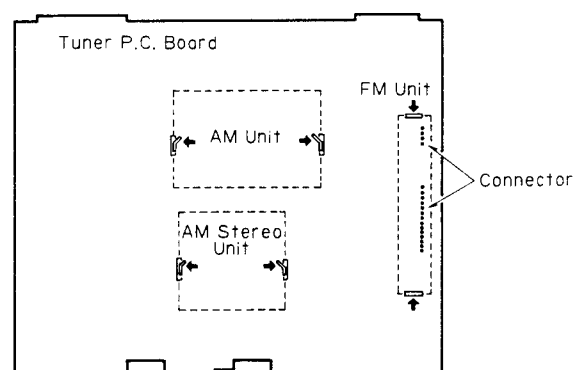


Fig. 9

• Removing the Key Board Unit, Volume P.C. Board A and Volume P.C. Board B

1. Disconnect the two connectors.
2. Remove the twelve screws.
3. Remove the each units.

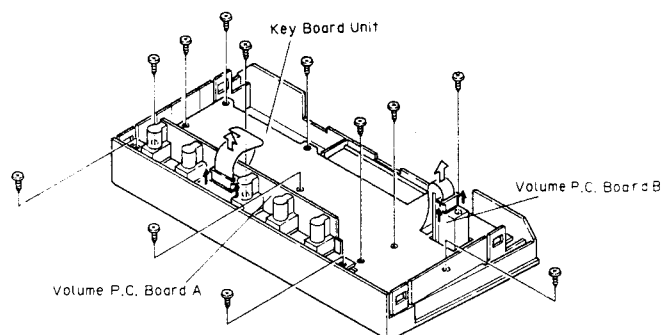


Fig. 10

4. ANTI-THEFT SECURITY SYSTEM

4.1 HOW TO INPUT THE THREE DIGIT SECURITY SYSTEM CODE

1. ACCESS MODE

First...

BE SURE THAT:

- the radio unit is turned off
- the ignition switch is in "ACC"

Then...

HOLD the "1 [REW]" and "6 [00]" buttons, and simultaneously PUSH and HOLD the "POWER. VOL" knob in, until "SEC" appears, then release buttons.

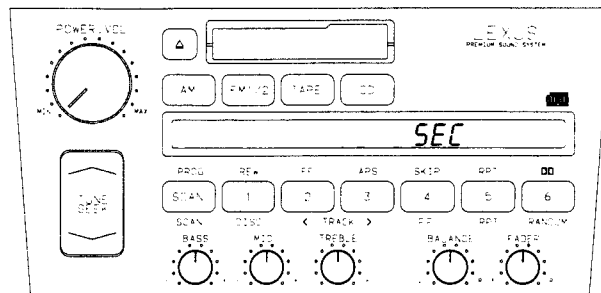


Fig. 11

2. READY MODE

PRESS and HOLD the "TUNE [^]" button in and PRESS the "1 [REW]" button. The display will read "♦ ———".

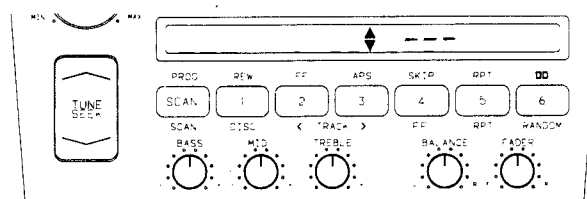


Fig. 12

3. INPUT MODE

Note: User has up to ten seconds to input each digit.

Now you're ready to input a three digit Identification Number.

To set the **first** ID digit:

- PRESS "1 [REW]" repeatedly until the desired number appears on the display

To set the **second** ID digit:

- PRESS "2 [FF]" repeatedly until the desired number appears on the display

To set the **third** ID digit:

- PRESS "3 [APS]" repeatedly until the final desired number appears on the display

EXAMPLE: If the desired ID number is 314, you'd press "1 [REW]" four times, press "2 [FF]" twice, and press "3 [APS]" five times. (Code digits range zero through nine.)

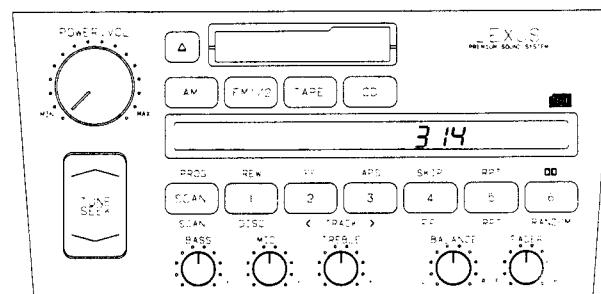


Fig. 13

4. SET MODE

With the ID number now appearing on the display:

- PRESS the "SCAN [PROG]" button and HOLD it in until "SEC" appears for a few seconds, then it will GO DARK.

NOTE: 1) CREATE AN ID NUMBER EASY TO REMEMBER
2) KEEP ID NUMBER IN A RELIABLE PLACE
3) DON'T LEAVE ID NUMBER IN THE VEHICLE!

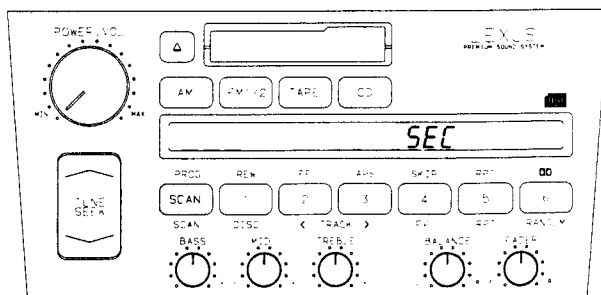


Fig. 14

4.2 HOW TO CHANGE THE THREE DIGIT SECURITY SYSTEM CODE

1. ACCESS MODE

First...

BE SURE THAT:

- the radio unit is turned off
- the ignition switch is in "ACC"

Then...

HOLD the "1 [REW]" and "6 [DISC]" buttons, and simultaneously PUSH and HOLD the "POWER. VOL" knob in, until "SEC" appears, then release buttons.

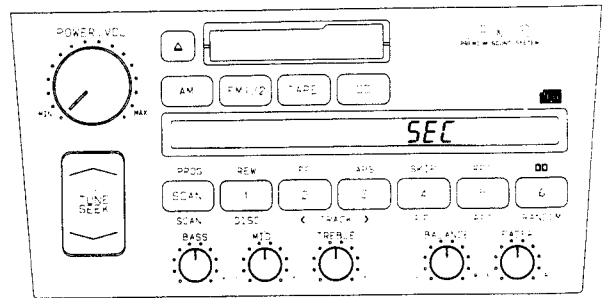


Fig. 15

2. READY MODE

PRESS and HOLD the "TUNE [^]" button in and PRESS the "1 [REW]" button. The display will read "♦ ----".

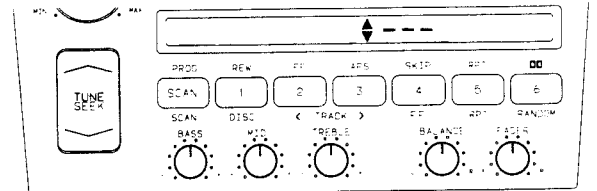


Fig. 16

3. INPUT MODE

Input existing three digit ID numbers.

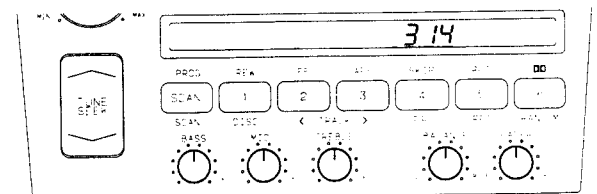


Fig. 17

4. SET MODE

Then, push "SCAN [PROG]." The display will now read "----" continuously.

* ("ERR" See "ERROR MESSAGE")

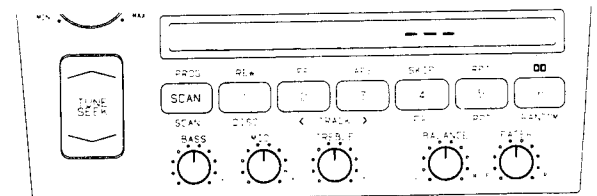


Fig. 18

5. READY MODE

PUSH "TUNE [^]" and "1 [REW]" simultaneously. The display will read "♦ ----".

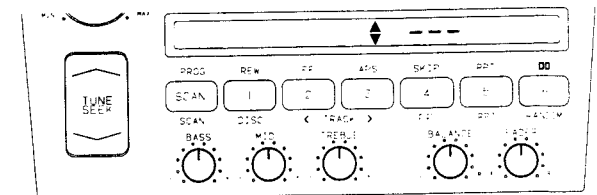


Fig. 19

6. INPUT MODE

Now you're ready to input a new three digit Identification Number.

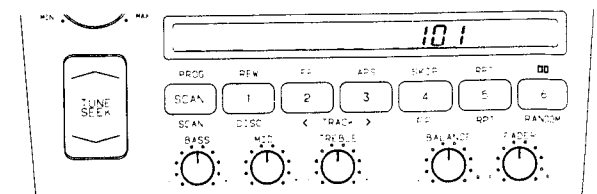


Fig. 20

7. SET MODE

With the ID number now appearing on the display:

- PRESS the "SCAN [PROG]" button and HOLD it in until "SEC" appears for a few seconds, then it will GO DARK.

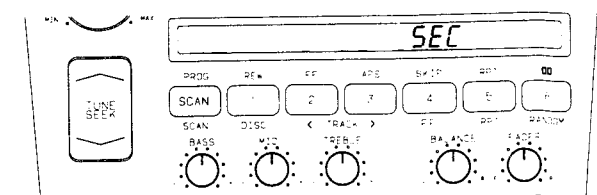


Fig. 21

4.3 HOW TO CLEAR THE SECURITY CODE

1. ACCESS MODE

First...

BE SURE THAT:

- the radio unit is turned off
- the ignition switch is in "ACC"

Then...

HOLD the "1 [REW]" and "6 [DISC]" buttons, and simultaneously PUSH and HOLD the "POWER. VOL" knob in, until "SEC" appears, then release buttons.

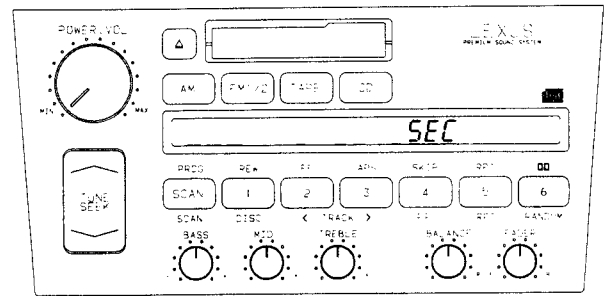


Fig. 22

2. READY MODE

PRESS and HOLD the "TUNE [^]" button in and PRESS the "1 [REW]" button. The display will read "♦ ---".

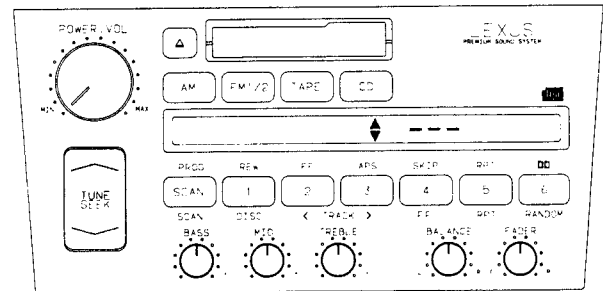


Fig. 23

3. INPUT MODE

Input existing three digit ID numbers.

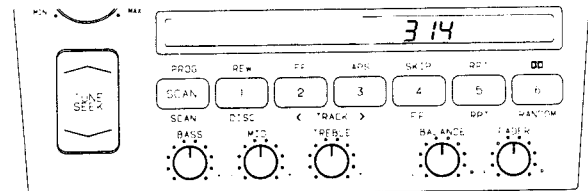


Fig. 24

4. SET MODE

Then, push "SCAN [PROG]." The display will now read "----" continuously.

* ("ERR" See "ERROR MESSAGE")

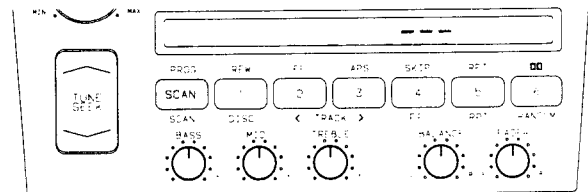


Fig. 25

5. WAIT for ten seconds. The security system clears itself and the display will GO DARK.

* (The security code should be cleared when the vehicle is resold.)

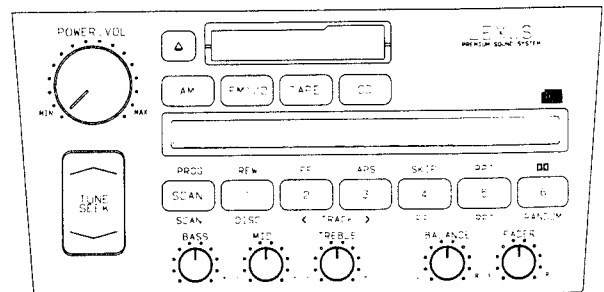


Fig. 26

4.4 HOW TO REACTIVATE A DISABLED ETR

1. If the power is disconnected by an attempted theft or loss of battery power, the display will read "**SEC**" continuously when the key is "on." Also, when the ignition key is turned to ACC, none of the ETR functions will function.

2. READY MODE

PRESS and HOLD the "TUNE [^]" button in and PRESS the "1 [REW]" button. The display will read "♦ ----".

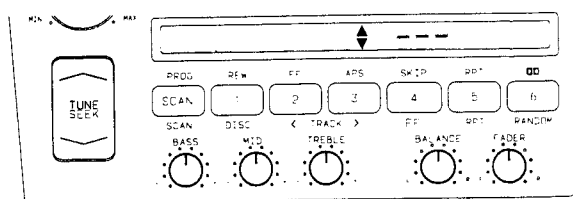


Fig. 27

3. INPUT MODE

Now you're ready to input the existing three digit Identification Number.

To set the **first** ID digit:

- PRESS "1 [REW]" repeatedly until the desired number appears on the display

To set the **second** ID digit:

- PRESS "2 [FF]" repeatedly until the desired number appears on the display

To set the **third** ID digit:

- PRESS "3 [APS]" repeatedly until the final desired number appears on the display

EXAMPLE: If the desired ID number is 314, you'd press "1 [REW]" four times, press "2 [FF]" twice, and press "3 [APS]" five times. (Code digits range zero through nine.)

Note: User has up to ten seconds to input each digit.

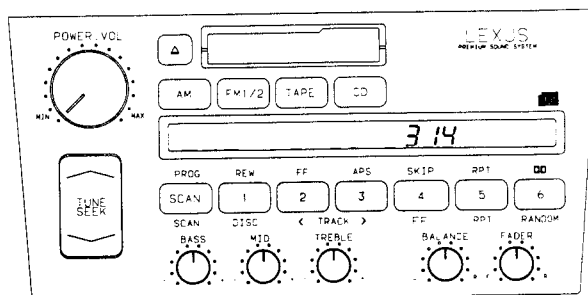


Fig. 28

4. SET MODE

With the ID number now appearing on the display:

- PRESS the "SCAN [PROG]" button and HOLD it in until "**SEC**" appears for a few seconds, then it will **GO DARK**.

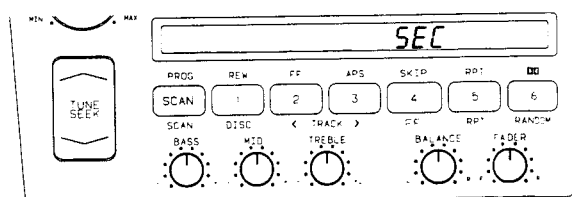


Fig. 29

ERROR MESSAGE

If the wrong buttons are pushed, "**Err**" will appear before "**SEC**" appears. Go back to Step 2 and try again. Or, if the display returns to "♦ ----" during your input, try again from Step 3. BUT:

BE CAREFUL! On the fifth wrong input, the ETR unit goes dead and must be reactivated by an authorized service station.

TO VERIFY that the ID number has been accepted as the security code, turn the key "off," then turn it back on, "**SEC**" should appear. Once the anti-theft system is properly set, "**SEC**" will appear on the display each time the ignition key is turned to "ACC" after being off.

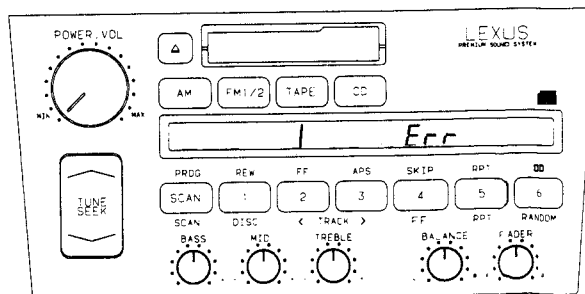


Fig. 30

5. GENERAL GUIDE

5.1 RADIO

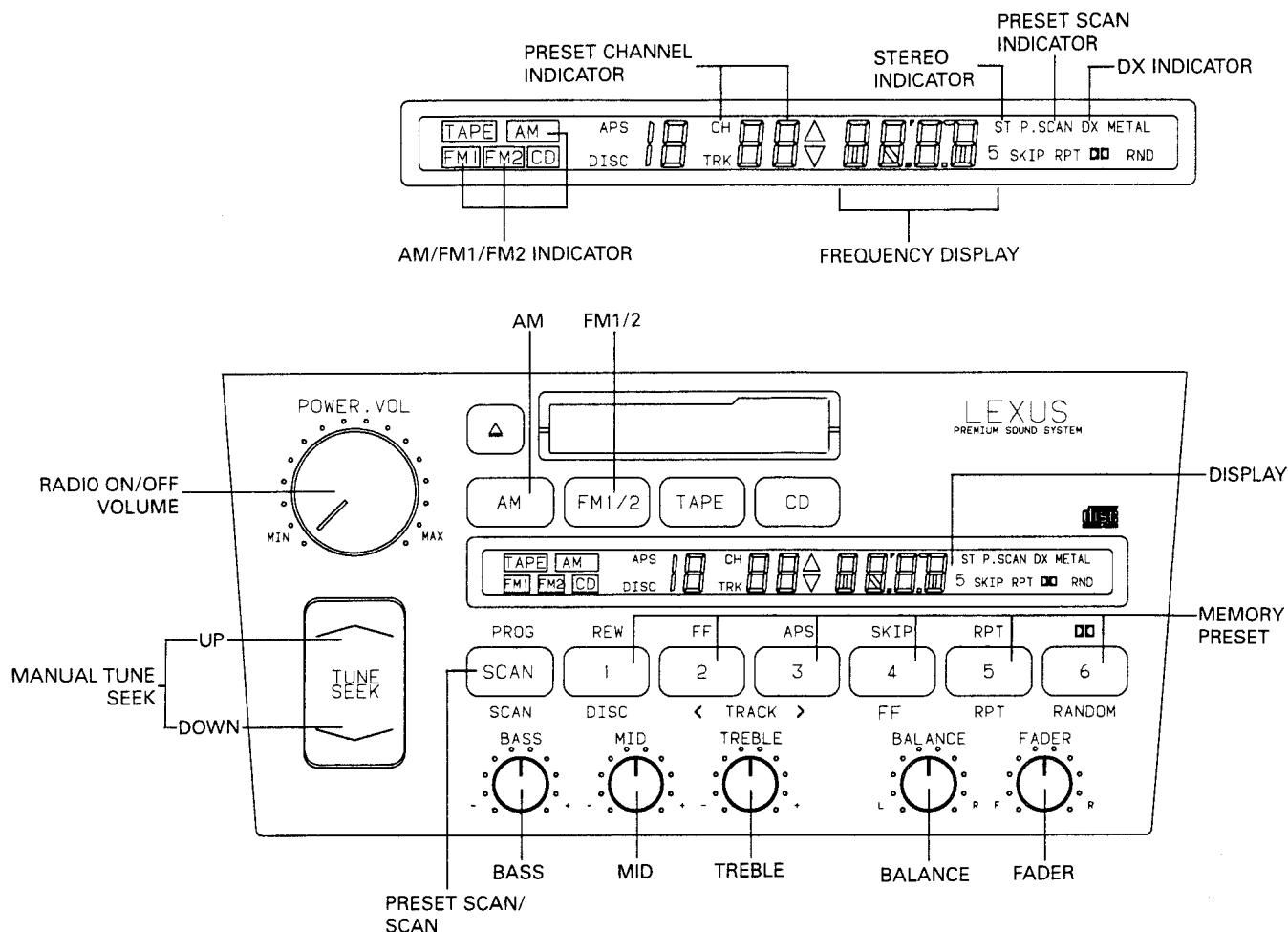


Fig. 31

● Manual/Seek Tuning:

When the \wedge (up) side of the TUNE button is pressed, the frequency is increased by 2 MHz in the FM band and by 10 kHz in the AM band, and when the \vee (down) side is pressed, the frequency is decreased in the same way. Holding the button depressed for more than 0.5 seconds starts seek tuning, which stops when a station broadcasting a sufficiently strong signal is received.

When only weak signals or no station is received, the frequency returns to the initial frequency, then the reception is changed to the DX mode.

● Memory Preset:

- (1) Select the required band among the FM1, FM2, and AM bands.
- (2) Tune to the broadcast station required to be stored in memory.
- (3) Press and hold one of the Memory Preset button for about 2 seconds.

- (4) A beep tone will be heard when the tuned station is stored in the memory corresponding to the Memory Preset button pressed.

- (5) Up to six stations can be memorized for each of the FM1, FM2 and AM bands.

● Preset Scan/Scan Tuning:

When the SCAN button is pressed, all the stations stored in the Memory Preset buttons will be received for 5 seconds in sequence.

When the SCAN button is held pressed for more than 2 seconds, the Scan Tuning mode is activated and station broadcasting strong signals will be received for 5 seconds in sequence. When the tuning returns to the frequency from which the Scan Tuning was started, the receiving mode is changed to the DX mode.

To release Preset Scan or Scan Tuning, press the SCAN button again.

5.2 TAPE

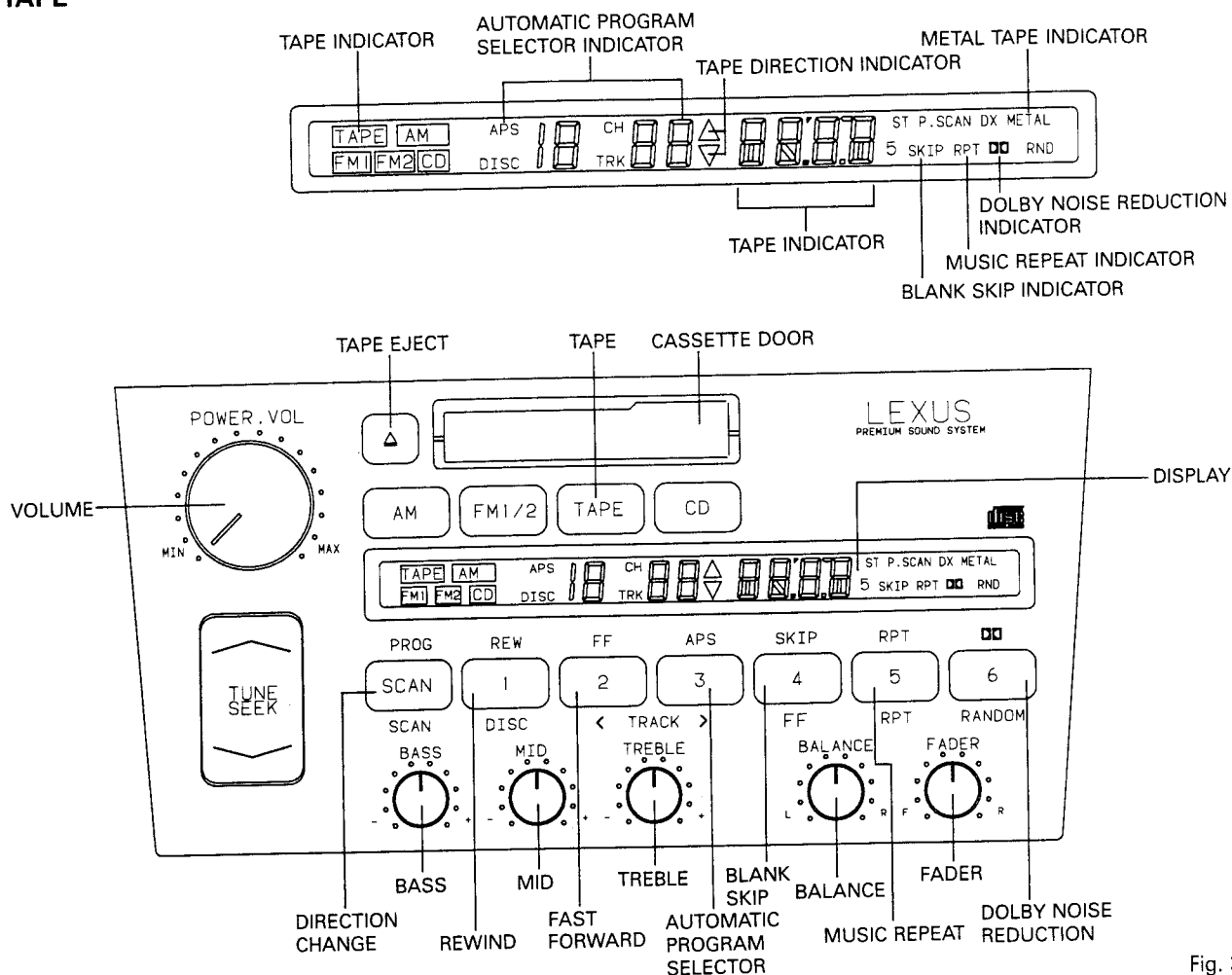


Fig. 32

● Rewind/Fast Forward:

Press the REW (or FF) button to rewind (fast-forward) the tape, and press it again to release the function.

● APS:

With the APS button, the beginning of any required tune up to 9 tunes before and after the current tune can be detected automatically. After pressing the APS button the number of times corresponding to the number of the tune to which you want to skip (for three times to select the 3rd tune), press the FF button to search in the forward direction or press the REW button to search in the reverse direction. The tape will stop at the beginning of the designated tune and play starts automatically.

(For example)

When the FF button is pressed after pressing the APS button three times, the tape is fast-forward by skipping two tunes in the forward direction, and play will start from the beginning of the 3rd tune.

● Blank Skip:

With the SKIP button pressed ON, when a blank (non-recorded) section of more than 15 seconds is detected, the tape is fast-forwarded to the beginning of the next tune. When the SKIP button is pressed again, the Blank Skip function is released.

● Music Repeat:

With the RPT button pressed ON, when the current tune is finished, the tape will be rewound to the beginning of the tune and play will restart automatically. When the RPT button is pressed again, the Music Repeat function is released.

● Dolby Noise Reduction*

Press this button when using a tape recorded with the Dolby (B type) Noise Reduction system. Press the button again to release it.

** Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation. Dolby and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.*

● Ejecting Tape:

The tape can be ejected at any time by pushing the TAPE EJECT button.

5.3 CD

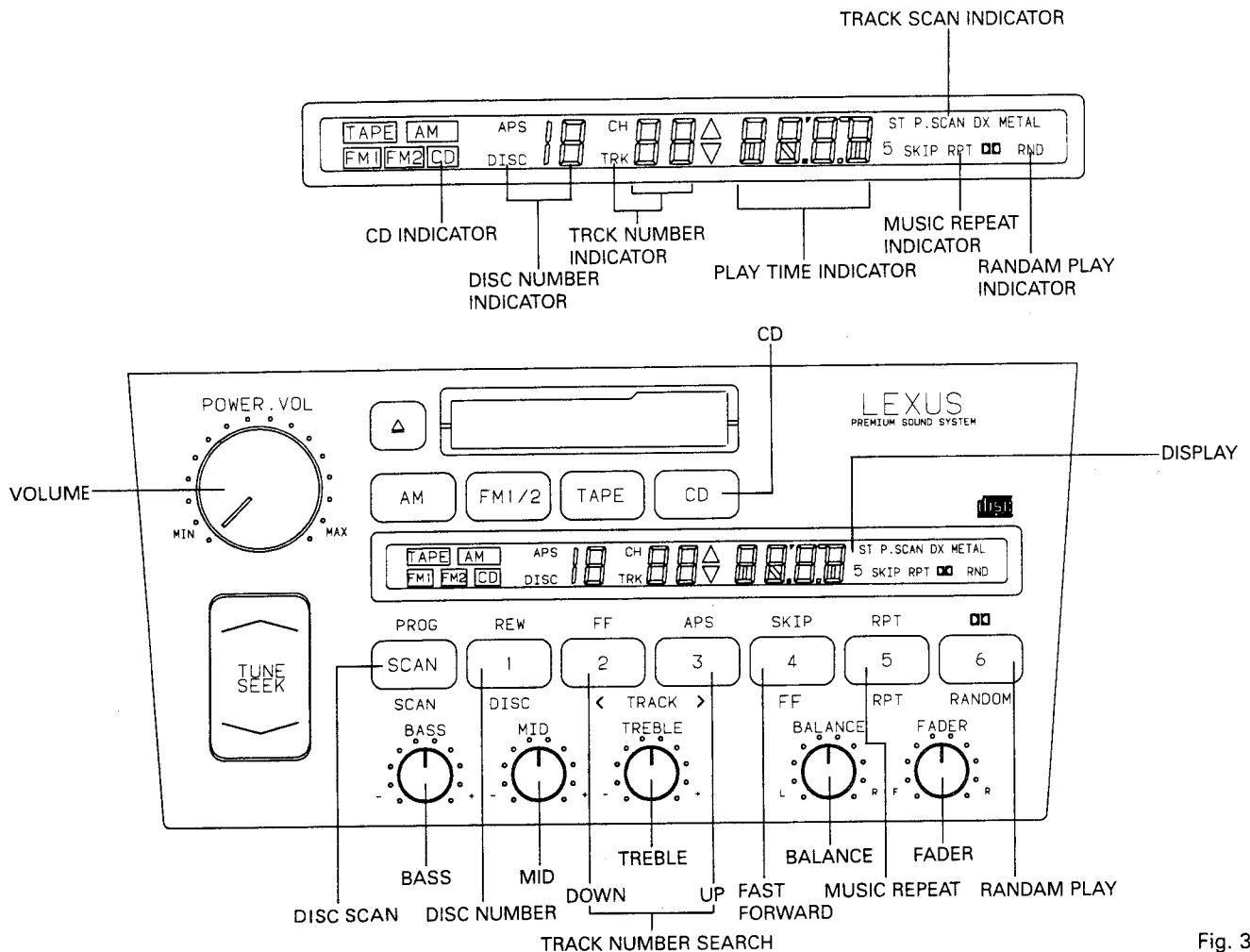


Fig. 33

● Changing the Discs:

When the DISC button is pressed, the disc number is counted up, and the disc designated by the DISC button will be played. When the DISC button is held pressed for more than 0.5 seconds, the disc number is counted up continuously. If a tray with no disc in the magazine loaded in the CD changer is selected, the corresponding disc number will not be displayed.

● Track Search:

When the TRACK < button is pressed, the track number is counted down and the designated track will be played. When the TRACK < button is held pressed for more than 0.5 seconds, the track number will be counted down continuously.

When the TRACK > button is pressed, the track number is counted up and the designated track will be played. When the TRACK > button is held pressed for more than 0.5 seconds, the track number will be counted up continuously.

● Fast Forward:

The playing position is fast-forwarded while the FF button is pressed. During fast-forwarding, playback sound can be heard.

● Music Repeat:

When the RPT button is pressed, the current track will be played repeatedly. Press the RPT button again to release the Music Repeat function.

● Random Play:

When the RANDOM button is pressed, the track to be played next will be selected automatically by the built-in microcomputer.

● Disc Scan:

When the SCAN button is pressed, the beginning of all the tracks on the discs loaded in the CD changer will be played for 10 seconds in sequence. When play returns to the disc from which Track Scan was started, Track Scan will be released. To release the Track Scan function during its operation, press the SCAN button again.

6. CIRCUIT DESCRIPTION

6.1 DATA COMMUNICATIONS

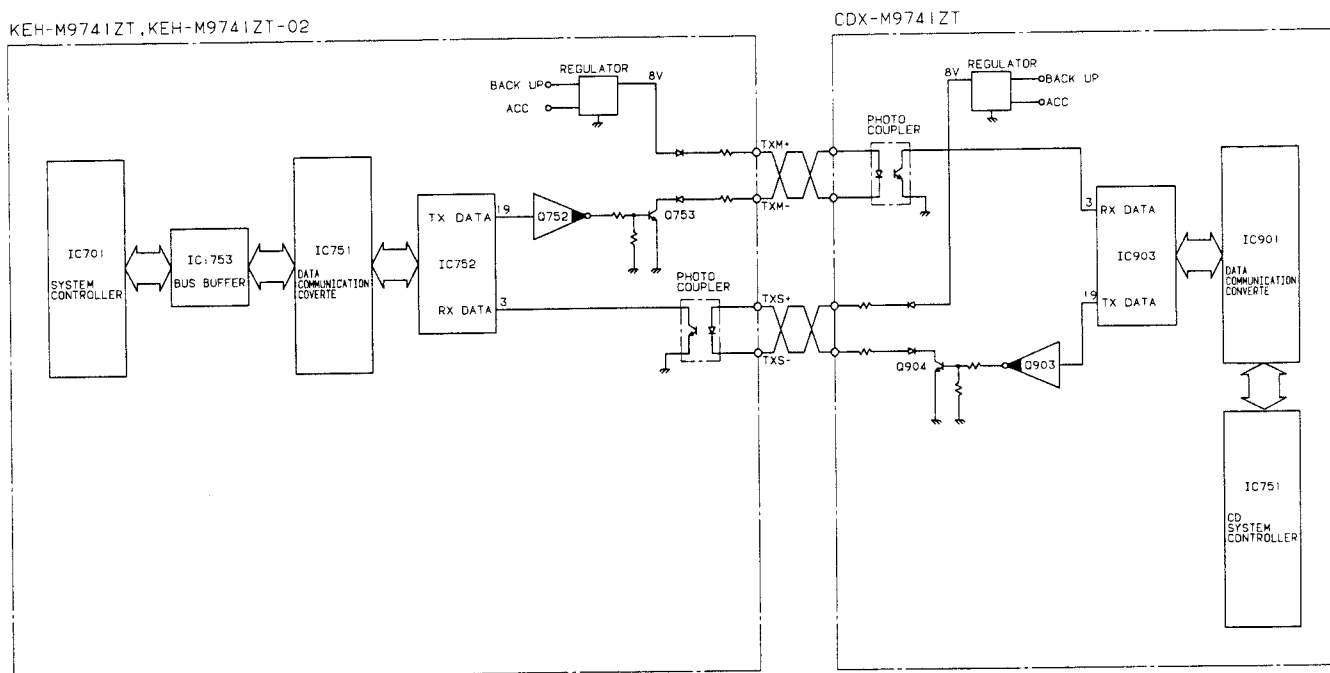


Fig. 34

● Communication Interface for Operation Control

1) Communication specifications

| | |
|-----------------------|------------------|
| Synchronization: | Asynchronous |
| Baud rate: | 4800 bps |
| Start bit length: | 1 bit |
| Data bit length: | 8 bit |
| Parity bit: | Even |
| Signal level: | ON +8 V, OFF 0 V |
| Communication method: | Half-duplex |

2) Transmission control system

Polling, system selection by master station

3) Signal terminal specifications

| Pin name | Definition | Signal direction |
|----------|---|------------------|
| ① TXM+ | Master transmission power supply (+8 V) | Master → Slave |
| ② TXM- | Master transmission output (open collector) | Master → Slave |
| ③ TXS+ | Master receiving input (positive) | Master ← Slave |
| ④ TXS- | Master receiving input (negative) | Master ← Slave |

• Data Format

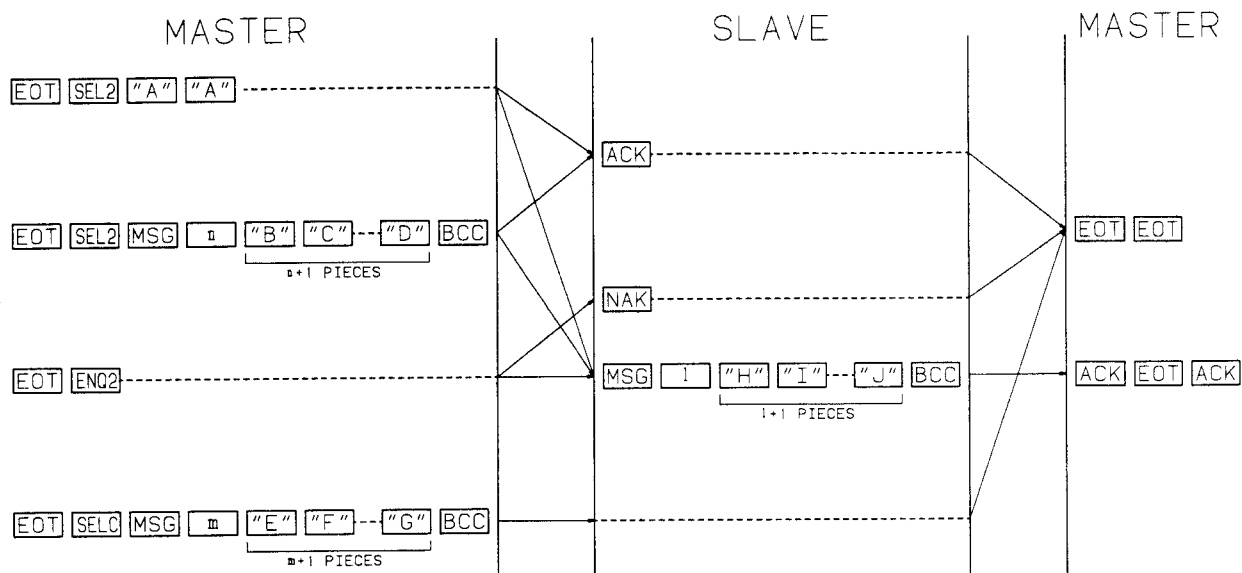


Fig. 35

• Communication Timing Chart

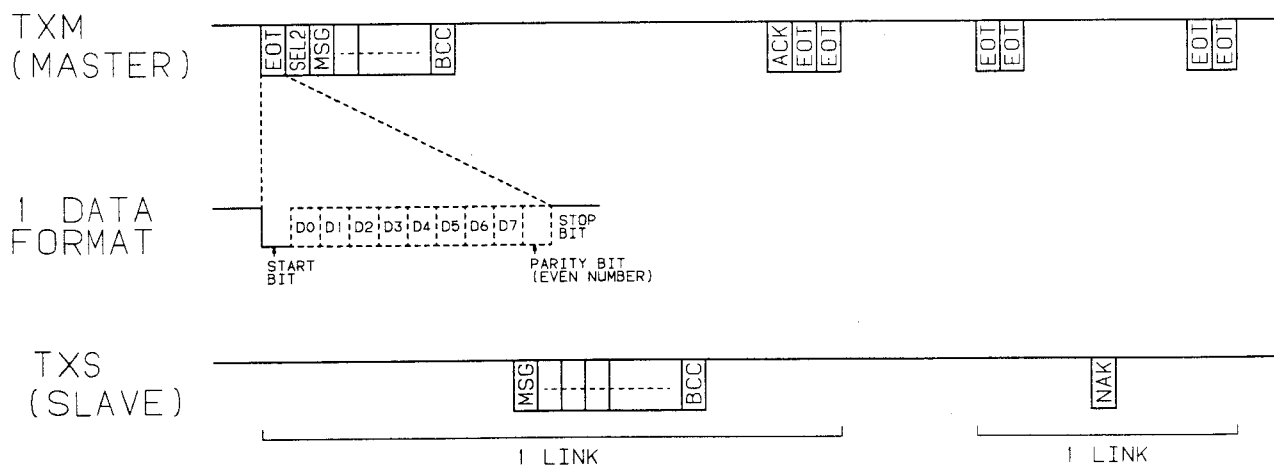


Fig. 36

6.2 FM DIVERSITY SYSTEM

The system incorporates two antennas and one tuner. Noise elements in the signal meter voltage are detected, and whenever noise is present the levels of the two antennas are compared. The antenna with the higher level is selected.

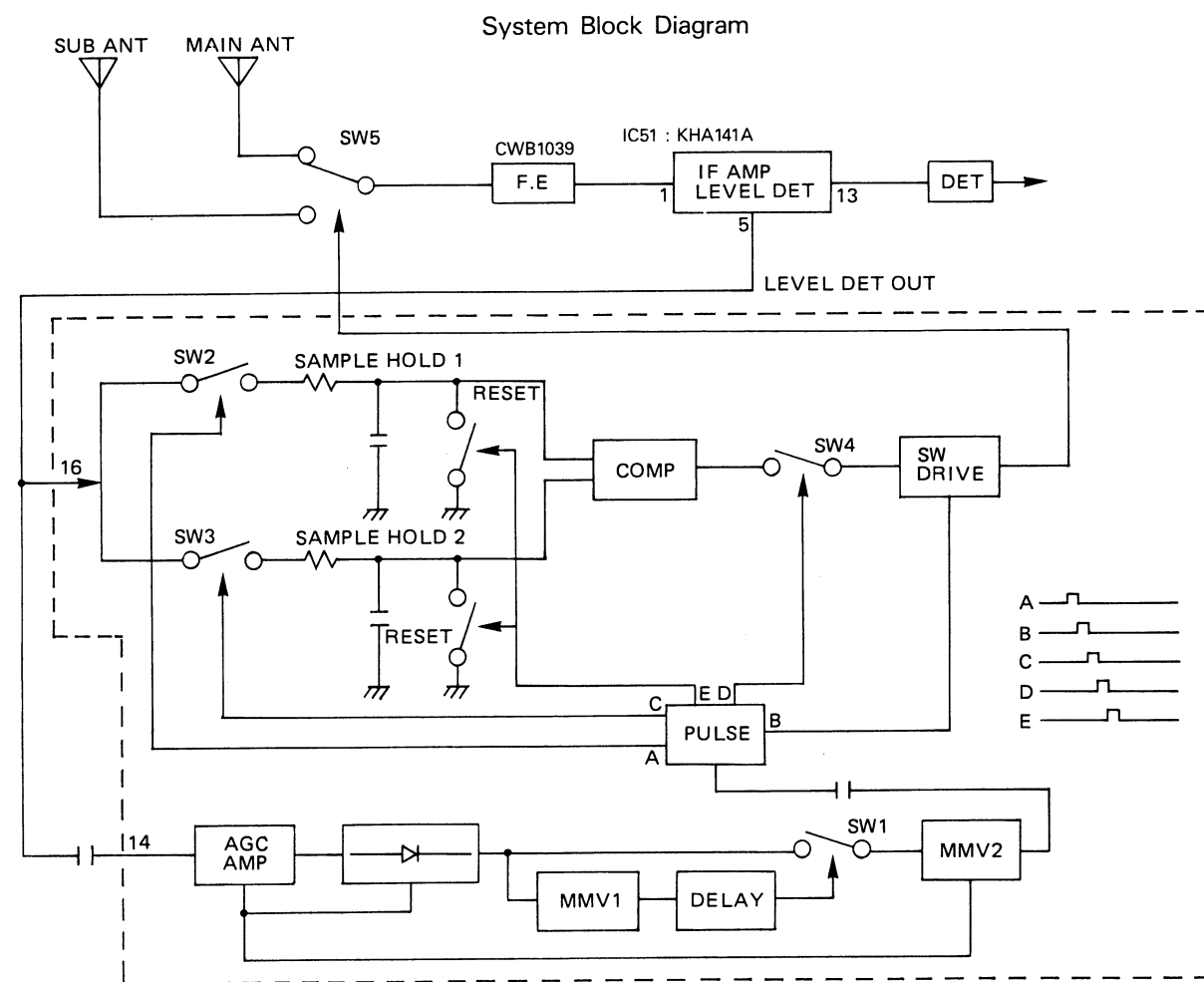


Fig. 37

Noise due to multipath distortion, etc. appears in the LEVEL DET OUT signal from pin 5 of IF IC KHA141A. The noise passes through a capacitor and is supplied to the AGC amplifier where it is amplified. Then it is rectified. This signal is then supplied to MMV1. After being delayed by approximately 40 – 50 μ sec. in the next delay circuit, it closes SW1 for a few μ sec. (determined by MMV1). If new noise is generated while SW1 is closed, this noise is supplied to MMV2. After wave shaping, it is supplied to the pulse generation circuit. The pulse generation circuit generates in sequence pulses A – E shown in the figure.

A is supplied to SW2, and sample and hold is performed on the ANT level for the signal being received at that point. B is supplied to SW DRIVE and the antenna is switched. C is supplied to SW3, and sample and hold is performed on the antenna input level after ANT was switched. D is supplied to SW4, closing it. The sample-and-hold 1 and 2 comparison output is sent to SW DRIVE.

At this point, if the ANT input level from before the switch is higher, ANT is switched back to the original antenna. If the ANT input level after the switch is higher, ANT remains connected to the current antenna. As described above, whenever noise is supplied to MMV2, the input levels of the two antennas are compared and the antenna with the higher level input is chosen.

6.3 MOTOR ANTENNA CONTROL

| Radio Status | ANT (+) | ANT (0) | ANT (1) | ANTENNA POSITION |
|---|---------|---------|---------|------------------------|
| OFF | L | L | L | With antenna shortened |
| During cassette or CD play | L | L | L | " |
| During AM broadcast reception | H | H | H | Long |
| During FM broadcast reception (87.9 – 96 MHz) | H | H | L | Medium |
| During FM broadcast reception (96.1 – 107.9 MHz) | H | L | L | Short |
| During AM seek or scanning | H | H | H | Long |
| During FM seek or scanning (Starts from 87.9 – 96 MHz) | H | H | L | Medium |
| During FM seek or scanning (Starts from 96.1 – 107.9 MHz) | H | L | L | Short |

6.4 ELECTRONIC VOLUME

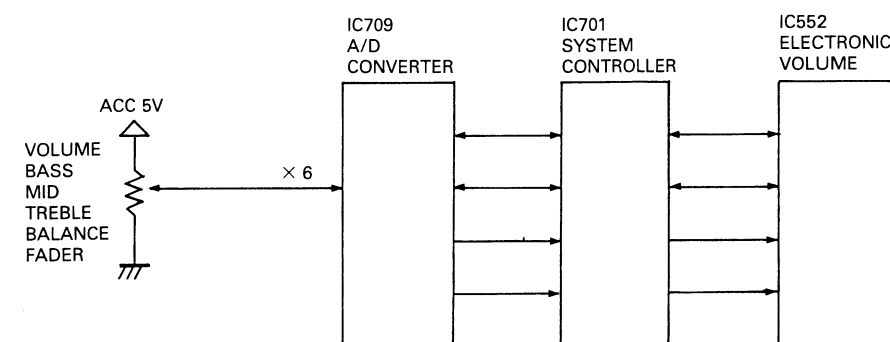


Fig. 38

In this unit, an electronic volume control circuit in IC552 is controlled by serial data. For operation of the electronic volume control circuit, the midpoint voltages of six variable resistors – VOLUME, BASS, MID, TREBLE, BALANCE and FADER – according to the rotation angles of the VRs are transmitted to IC709 in which analog signals are converted into digital signals. Then, the signal is converted into serial data in IC701, and applied to IC552 to be used for controlling the electronic volume control circuit in IC552.

6.5 BLOCK DIAGRAM

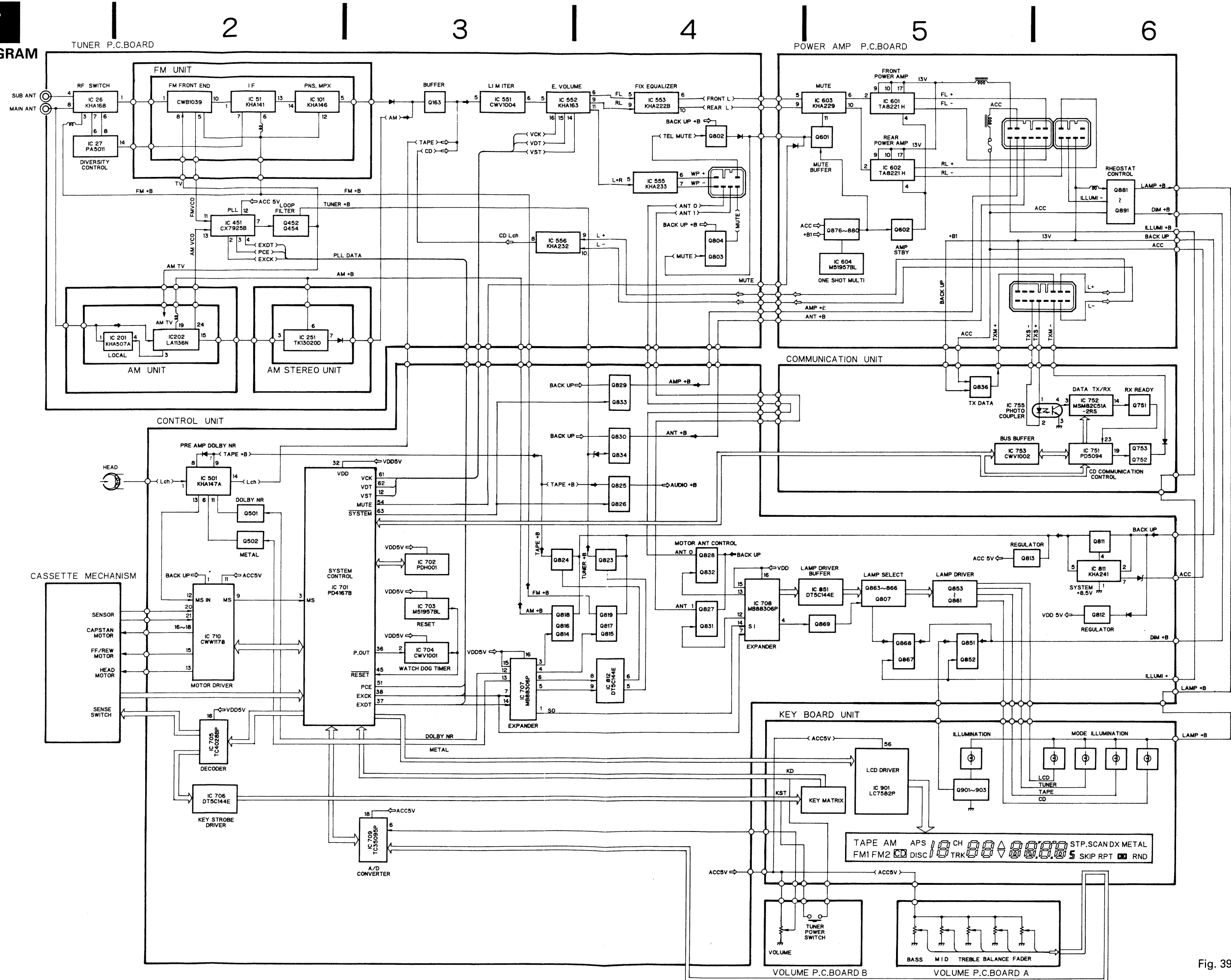


Fig. 39

6.6 DATA COMMUNICATION BLOCK DIAGRAM

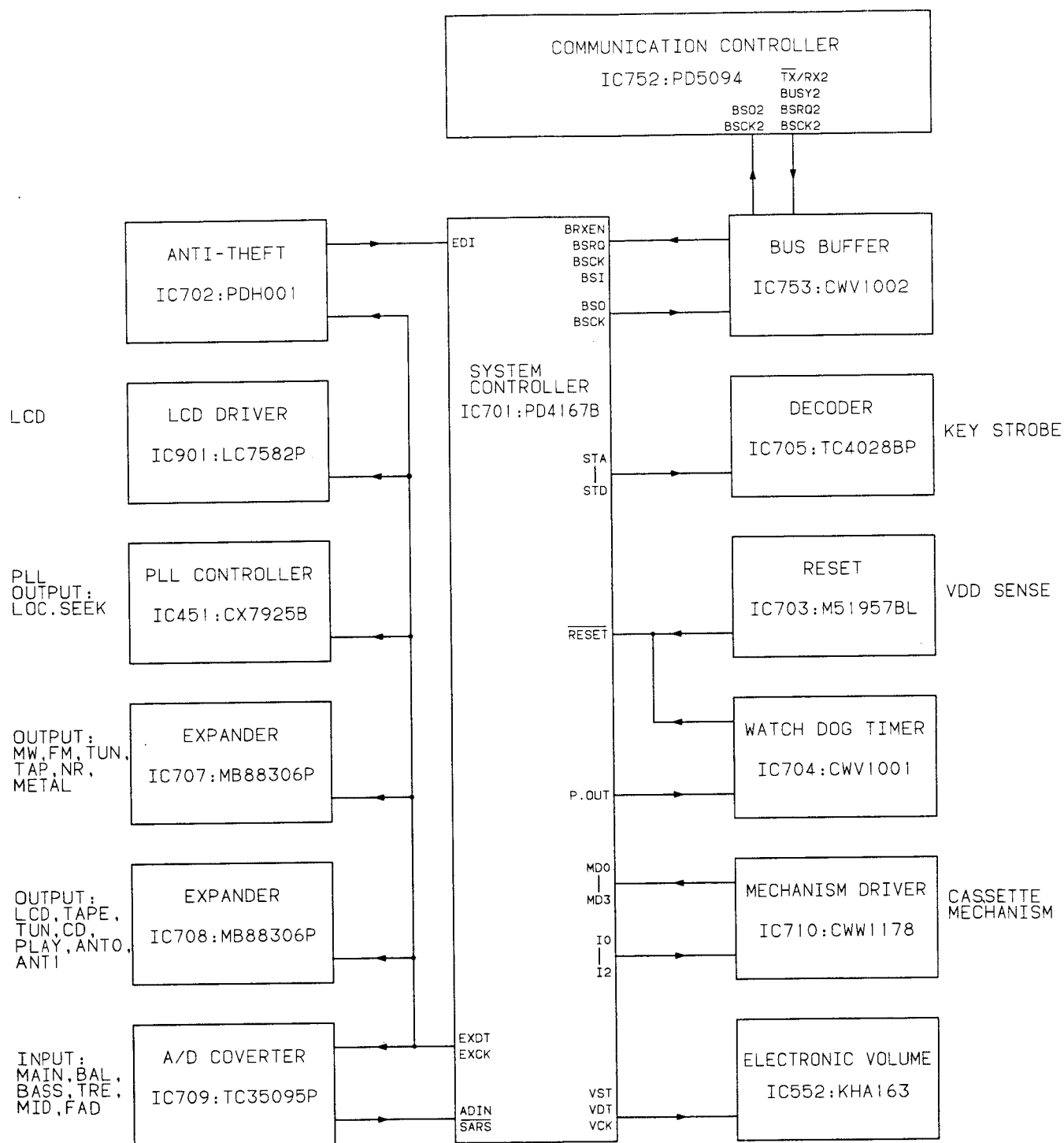


Fig. 40

7. EXTENSION CABLE GUIDE

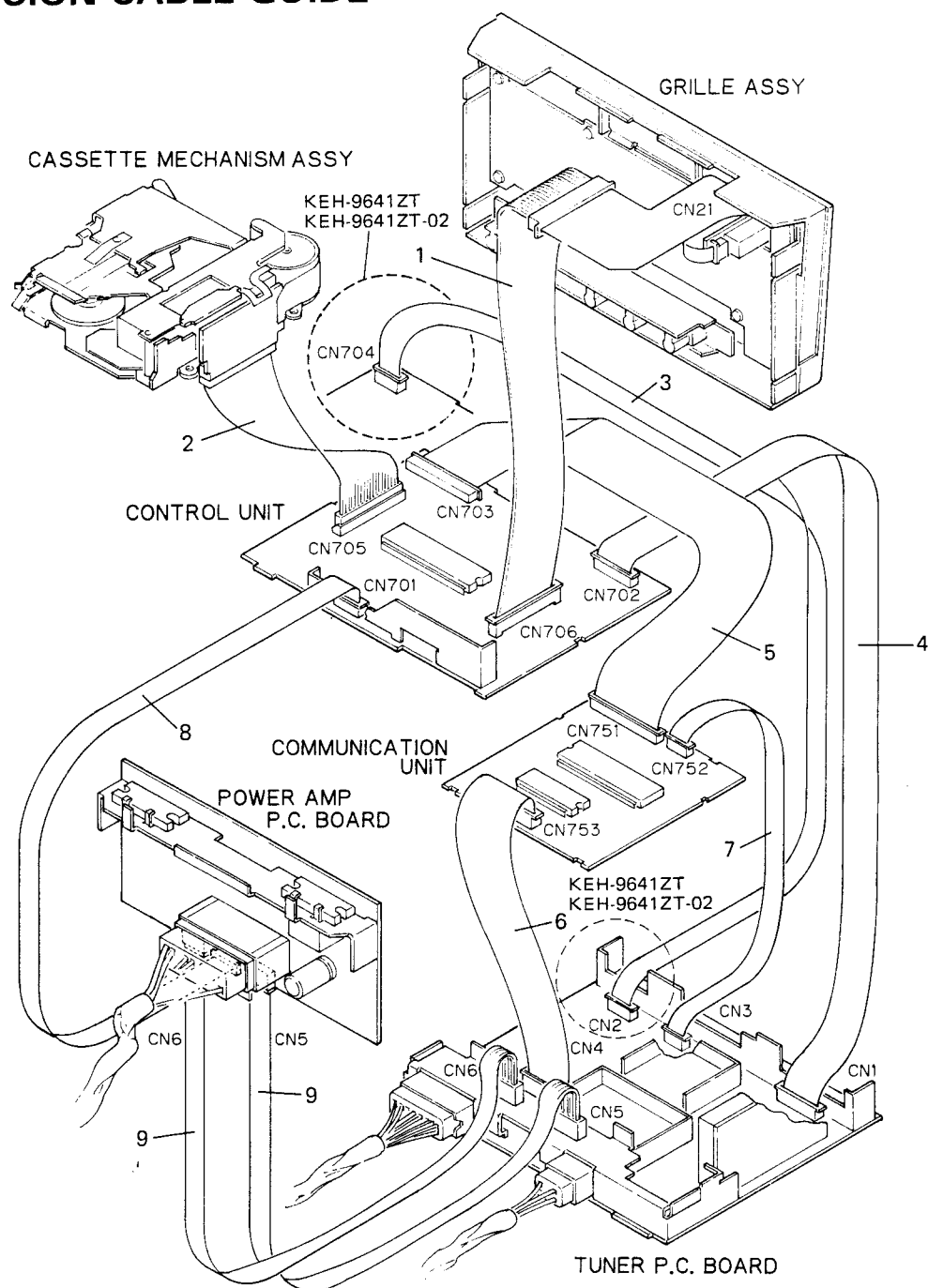


Fig. 41

| No. | Part No. | Note | No. | Part No. | Note |
|-----|----------|-----------------------------|-----|----------|-----------------------------|
| 1 | GGF-126 | | 6 | GGF1017 | KEH-M9741ZT, KEH-M9741ZT-02 |
| 2 | GGF-070 | | 7 | GGF1016 | KEH-M9741ZT, KEH-M9741ZT-02 |
| 3 | GGF1018 | KEH-9641ZT, KEH-9641ZT-02 | 8 | GGF1015 | |
| 4 | GGF1013 | | 9 | GGF-079 | |
| 5 | GGF1014 | KEH-M9741ZT, KEH-M9741ZT-02 | | | |

8. ADJUSTMENT

8.1 TEST MODE

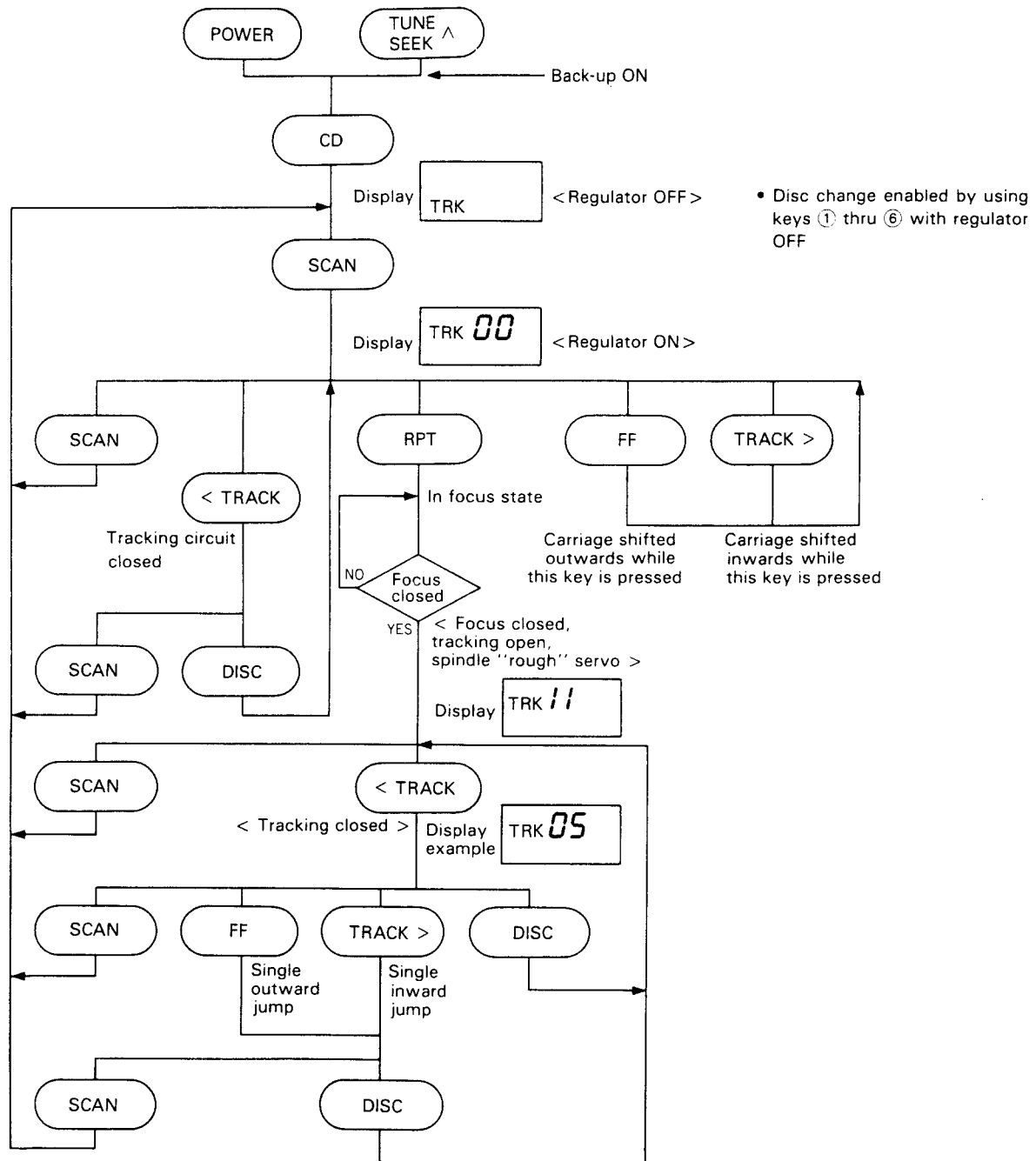
Test mode is mainly used in adjustment of CD multi-player
CDX-M9741ZT

- Switching to test mode
While pressing the POWER, TUNE keys together, switch the back-up ON.
- Canceling test mode
Switch the CD multi-player back-up OFF.
- Key functions during test mode
The CD multi-player is selected by the key.

a) CD multi-player

| Key | Function |
|---------|---------------------|
| SCAN | DD converter ON/OFF |
| FF | FWD kick |
| TRACK > | REV kick |
| TRACK < | Tracking close |
| DISC | Tracking open |
| RPT | Focus close |
| RANDOM | Disc change |

• Flow Chart



8.2 AUDIO/TUNER ADJUSTMENT

NOTICE:

Select C1 so that total capacity of 80pF is attained from the direction of the receiver jack.

Z: Output impedance of SSG.

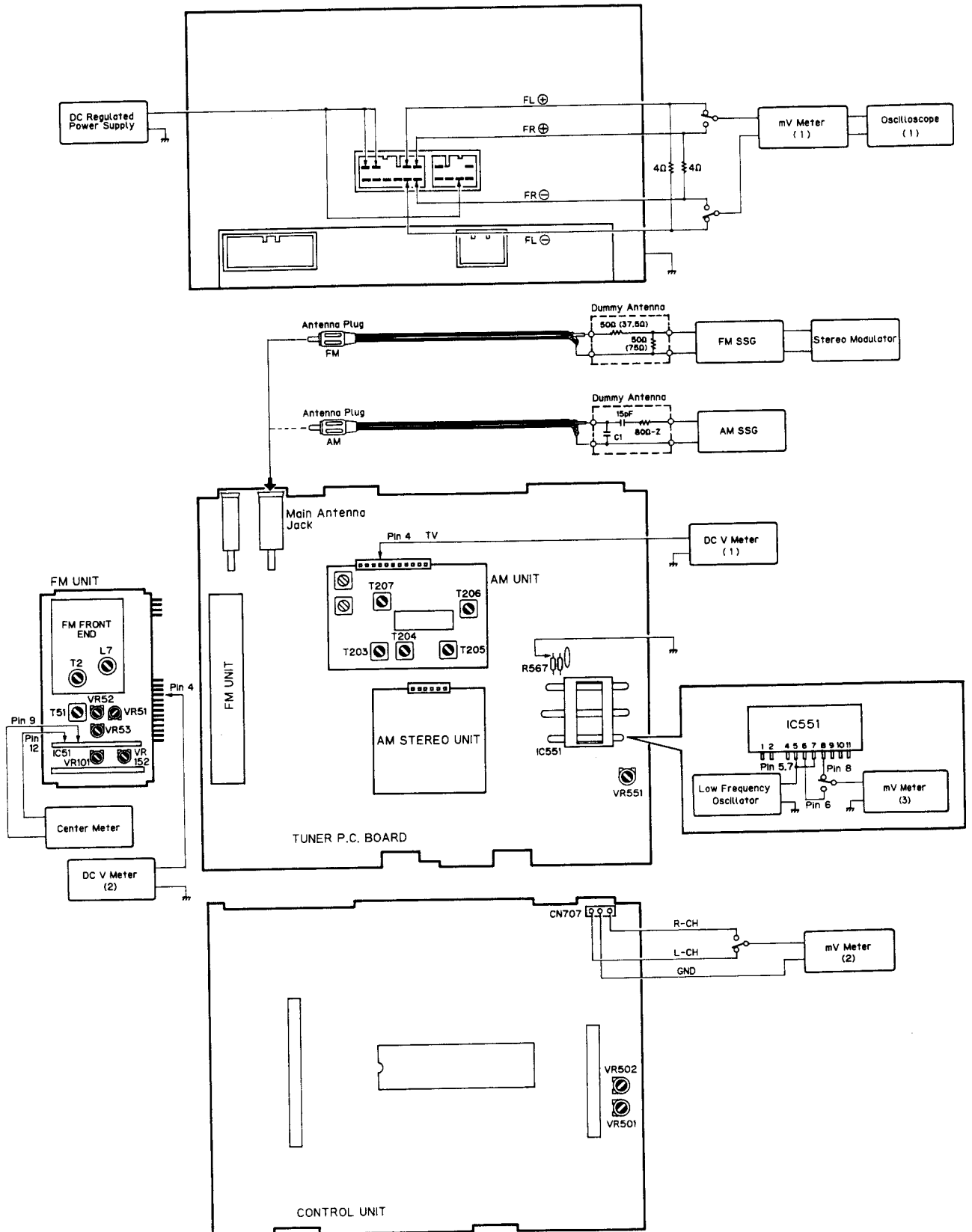


Fig. 42

DOLBY NR ADJUSTMENT

| No. | Cassette Tape | Adjusting Point | Adjustment Method (Switch Position) |
|-----|---------------------------|-------------------------|---|
| 1 | NCT-150 (400Hz, 200nwb/m) | VR501 (Lch) VR502 (Rch) | mV Meter (2): 388mV (-6dBs) (DOLBY NR Switch: OFF) |

LIMITER ADJUSTMENT

| No. | Low Frequency Oscillator | | Adjusting Point | Adjustment Method (Switch Position) |
|-----|--------------------------|------------|-----------------|---|
| | Frequency (Hz) | Level (mV) | | |
| 1 | 2,000 | 500 | — | R567 connect to ground. mV Meter (3): A dB |
| 2 | 50 | 500 | VR551 | mV Meter (3): $A \pm 0.5$ dB |

AM ADJUSTMENT

| | No. | AM SSG (400Hz, 30%) | | Displayed Frequency (kHz) | Adjusting Point | Adjustment Method (Switch Position) |
|----------------|-----|----------------------|--------------------|---------------------------------|------------------------|---|
| | | Frequency (kHz) | Level (dB μ V) | | | |
| Tuning Volt | 1 | 530 | 25 | 530 | T207 | DC V Meter (1): 1.0 ± 0.3 V |
| | 2 | 1,710 | 25 | 1,710 | — | Verify that DC V Meter is less than 6.0 ± 0.5 V. |
| | 3 | 600 | 25 | 600 | T203, 204, 205, 206 | mV Meter (1): Maximum |
| SEEK | 1 | 1,000 | 35 ± 8 | 1,000 | | Verify that SEEK stops. SEEK stops level: BdB |
| | 2 | 1,000 | $B + 22 \pm 5$ | 1,000 | | Verify that SEEK stops. |

FM ADJUSTMENT

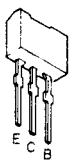
※1 Stereo MOD. : 1kHz, L+R=90% , Pilot=10%

※2 Disconnect antenna plug

| | No. | FM SSG (400Hz, 100%) | | Displayed Frequency (MHz) | Adjusting Point | Adjustment Method (Switch Position) |
|-----------|-----|----------------------|--------------------|---------------------------|-----------------|--|
| | | Frequency (MHz) | Level (dB μ V) | | | |
| IF | 1 | 98.1 | 60 | 98.1 | T51 | Center Meter:0 |
| Front End | 1 | | | 107.9 | L7 | DC V Meter (1) : 6.7 ± 0.2 V |
| | 2 | | | 87.9 | — | Verify that DC V Meter is more than 2.2 ± 0.6 V. |
| | 3 | 98.1 | 15 | 98.1 | T2 | mV Meter (1) : Maximum |
| ARC | 1 | 98.1 | 60 | 98.1 | VR51 | DC V Meter (2) : 2.5 ± 0.1 V |
| MPX | 1 | 98.1 ※1 | 60 | 98.1 | VR101 | mV Meter (1) : Separation Maximum |
| | 2 | 98.1 ※1 | 35 | 98.1 | VR152 | mV Meter (1) : Separation 5dB |
| | 3 | 98.1 ※1 | 60 | 98.1 | — | mV Meter (1) : CdB |
| | 4 | 98.1 ※1 | $-\infty$ ※2 | 98.1 | VR53 | mV Meter (1) : C-20dB |
| SEEK | 1 | 98.1 | 22 ± 6 | 98.1 | VR52 | Make SEEK stop. SEEK stops level: DdB |
| | 1 | 98.1 | $D+28 \pm 10$ | 98.1 | | Verify that SEEK stops. |

• ICs and Transistors

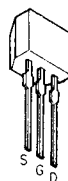
2SB1243
2SC3665
2SD1226MF
2SD1859



2SA1048
2SC1740S
2SC2458
2SC3113



2SK330



2SK435



2SB942



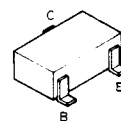
2SC3473



2SC2872S



2SA1162
2SC2712
2SC3295



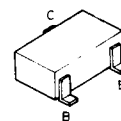
DTA144ES
DTA114ES
DTB114ES
DTC114ES
DTC144ES
DTC124ES
DTC144TS



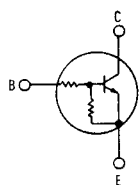
DTB113ZV
DTB133HV



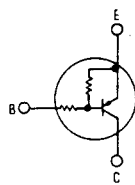
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DTC123EK
DTC144EK
DTC143EK
DTC124EK



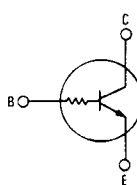
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DTC114ES
DTC124ES



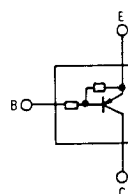
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DTA114ES
DTB114ES
DTB113ZV
DTB133HV



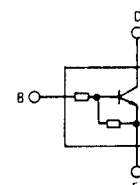
DTC144TS



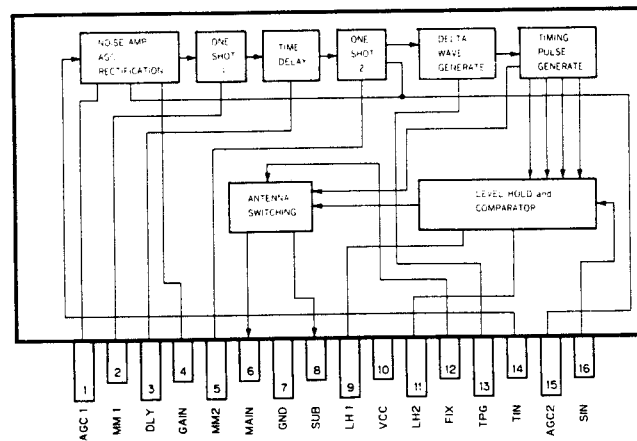
DTA144EK



DTC123EK
DTC144EK
DTC143EK
DTC124EK



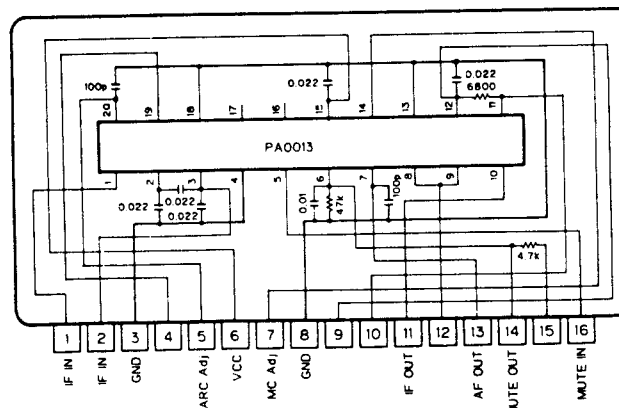
PA5011



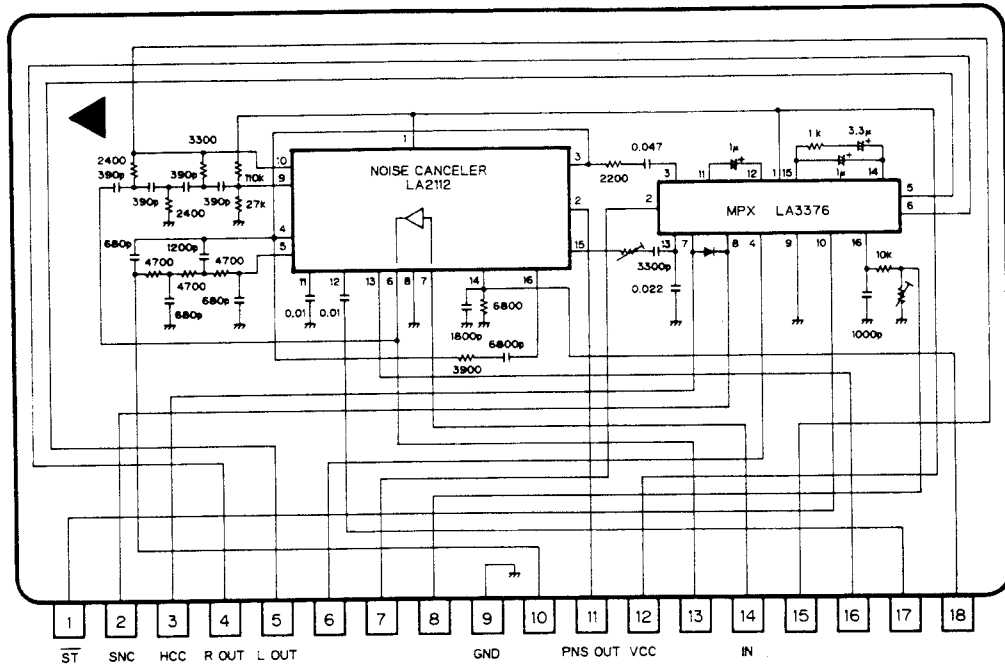
● Pin Functions (PA5011)

| Pin No. | Pin Name | I/O | Functions and Operation |
|---------|----------|-----|--|
| 1 | AGC1 | | Connected to gain control, noise amplifier AGC1 CR. |
| 2 | MM1 | | Connected to MMV1 output pulse width setting capacitor. |
| 3 | DLY | | Connected to time delay setting capacitor. |
| 4 | GAIN | | Connected to noise amplifier gain setting CR. |
| 5 | MM2 | | Connected to MMV2 output pulse width setting capacitor. |
| 6 | MAIN | O | "L" when the main antenna is selected. |
| 7 | GND | | |
| 8 | SUB | O | "L" when the sub antenna is selected. Output phase is the opposite of that of the main antenna. Open corrector output. |
| 9 | LH1 | | Connected to level hold 1 capacitor. |
| 10 | VCC | | |
| 11 | LH2 | | Connected to level hold 2 capacitor. |
| 12 | FIX | I | Auto mode when open. Fixed at main antenna when connected to GND. Fixed at sub antenna when connected to VCC. |
| 13 | TPG | | Connected to timing pulse generation capacitor. |
| 14 | TIN | I | Noise amplifier input terminal. The tuner signal meter output signal passes through a capacitor and is input. |
| 15 | AGC2 | | Connected to noise amplifier AGC2 CR. |
| 16 | SIN | I | Level hold circuit input terminal. Tuner signal meter output signal is input. |

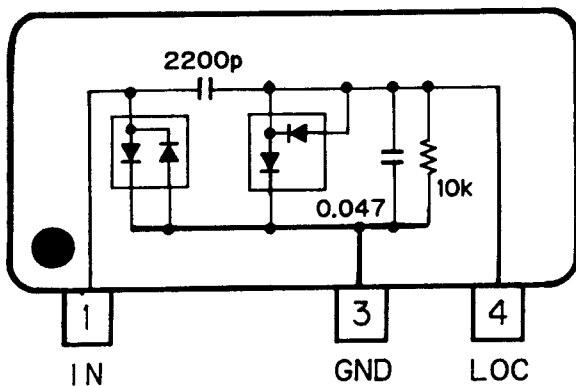
KHA141A



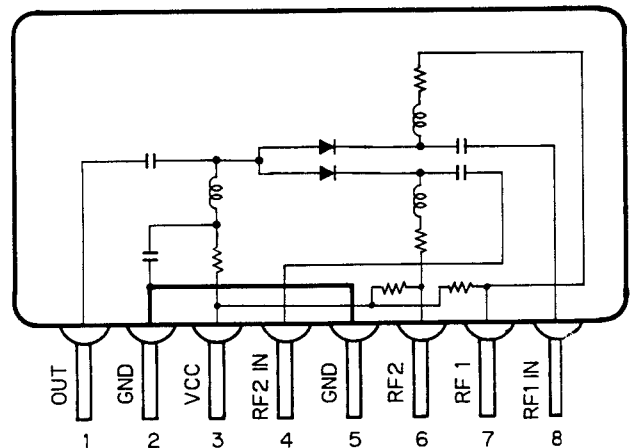
KHA146



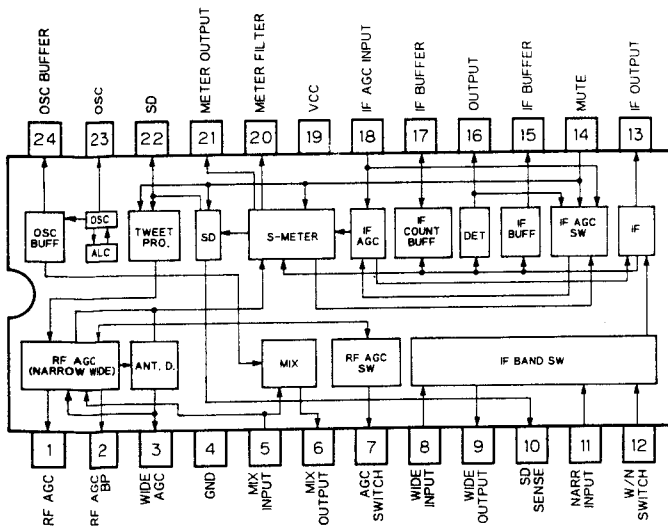
KHA507



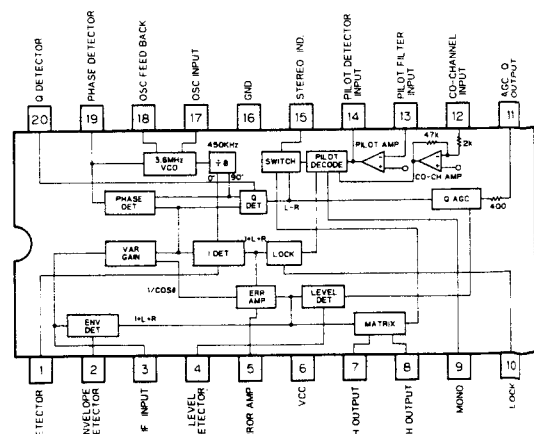
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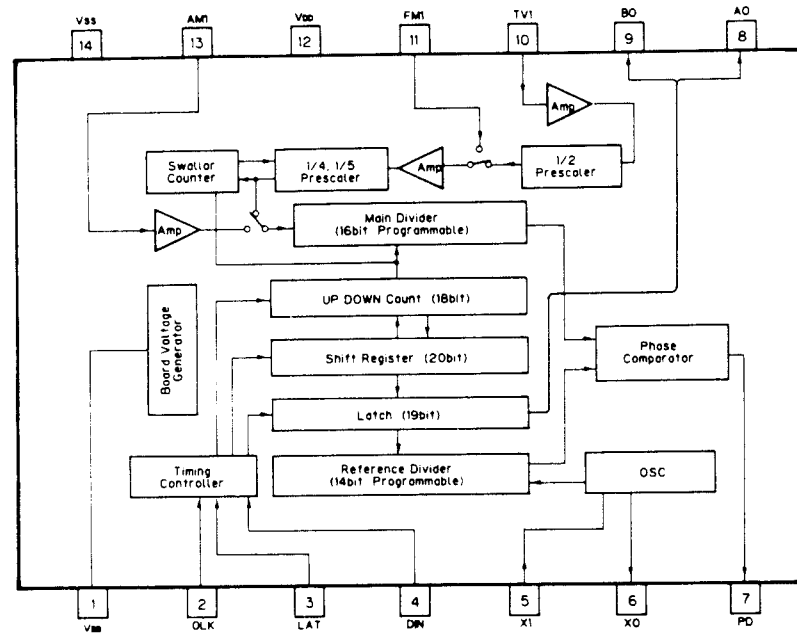
LA1136N



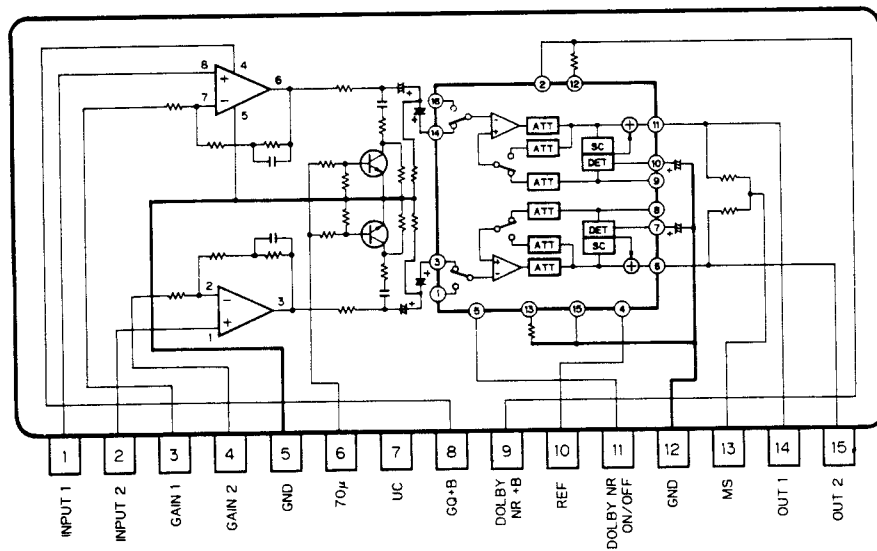
TK13020D



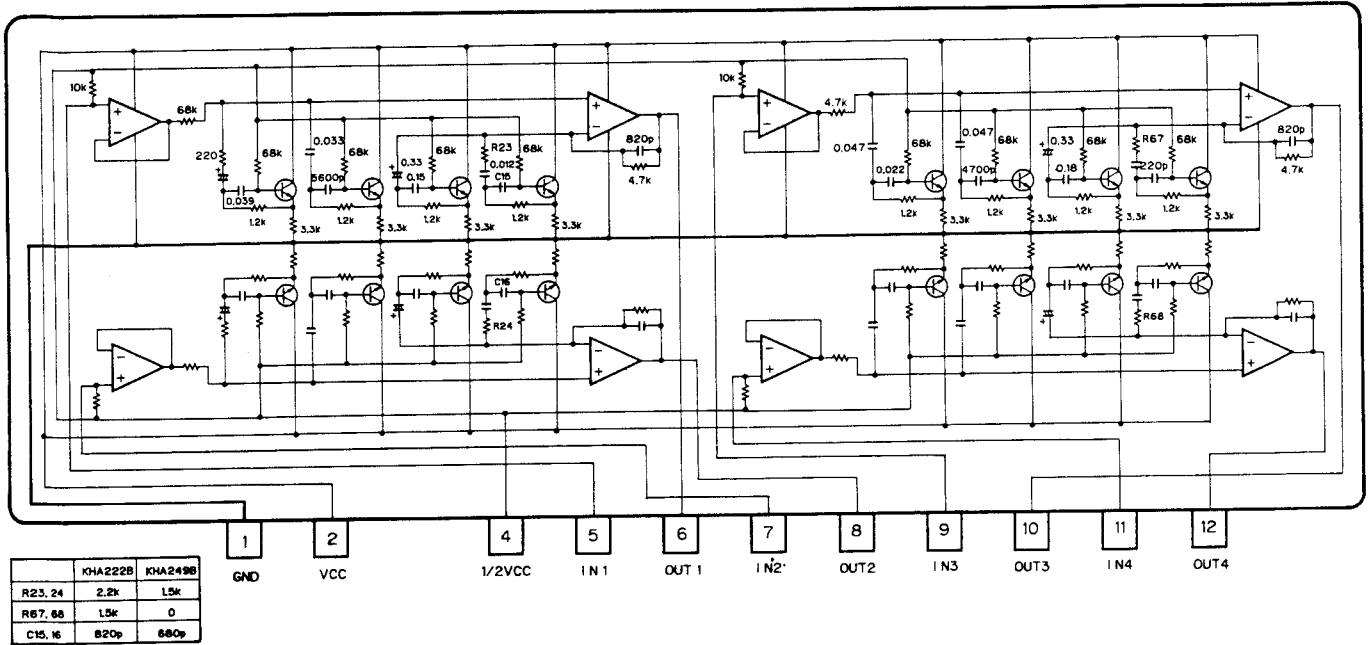
CX-7925B



KHA147

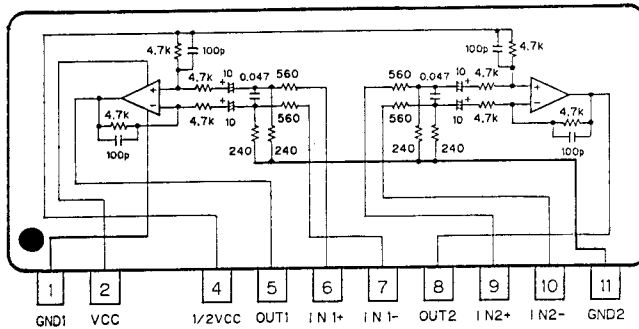


KHA222B, KHA249B

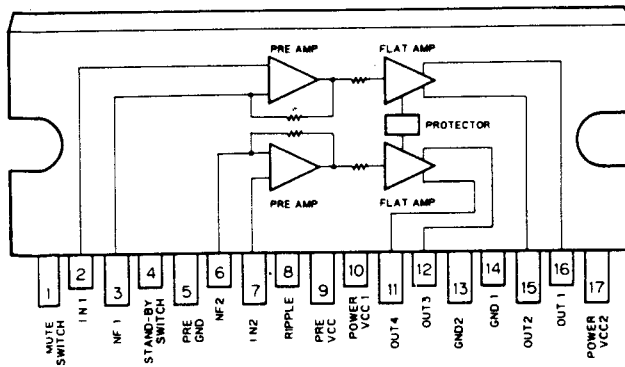


*PD4167B

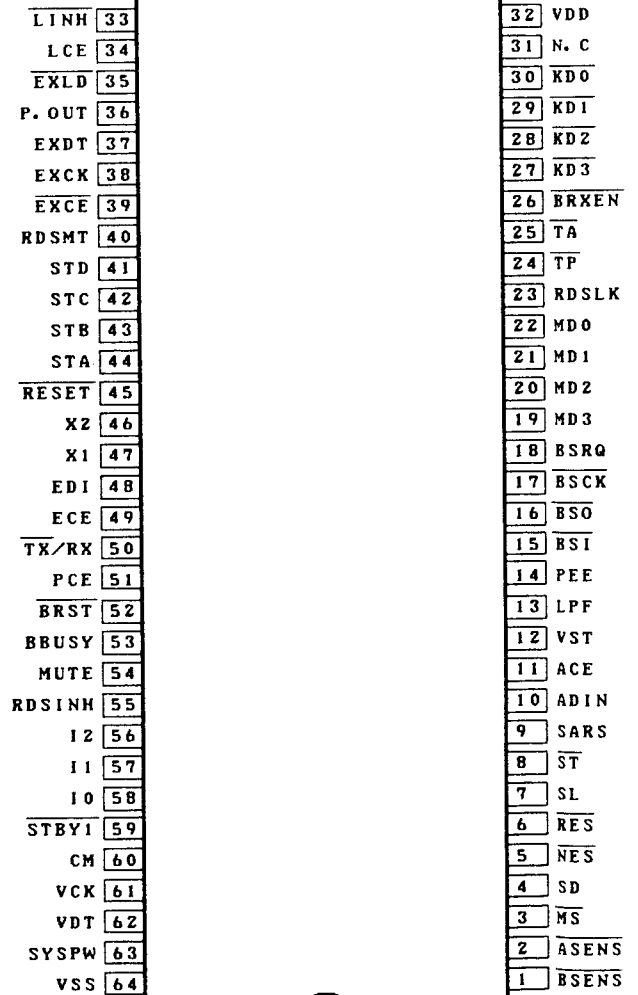
KHA232A



TA8221H



IC's marked by * are MOS type.
Be careful in handling them because they are very
liable to be damaged by electrostatic induction.



• Pin Function (PD4167B)

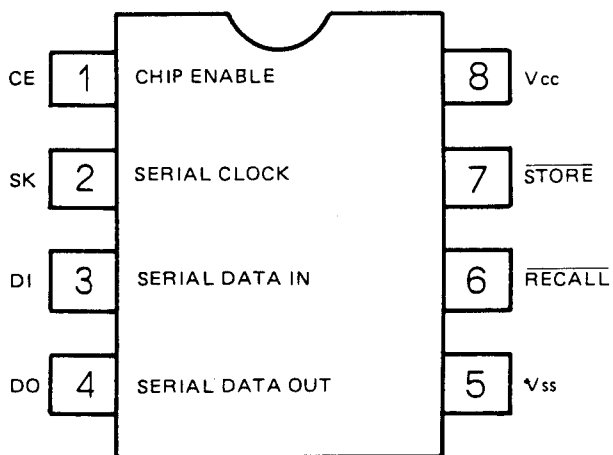
| Pin No. | Pin Name | I/O | Output Format | Function and Operation |
|---------------|-----------------|--------------|---------------|---|
| 1 | BSENS | Input | | Back up power sense input pin |
| 2 | ASENS | Input | | ACC power sense input pin |
| 3 | MS | Input | | Tape MS signal input pin |
| 4 | SD | Input | | SD input pin |
| 5 | NES | Input | | Reel pulse input pin for forward side of the tape |
| 6 | RES | Input | | Reel pulse input pin for reverse side of the tape |
| 7 | SL | Input | | Station level analog voltage input |
| 8 | ST | Input | | Stereo input pin |
| 9 | SARS | Input | | Status input pin for A/D converter(IC709) |
| 10 | ADIN | Input | | Data input pin for A/D converter(IC709) |
| 11 | ACE | Output | C | Chip enable output pin for A/D converter (IC709) |
| 12 | VST | Output | C | Strobe pulse output pin for electronic volume (IC552) |
| 13 | LPF | Output | C | Not used |
| 14 | PEE | Output | C | Beep tone output pin f=4kHz 100mS |
| 15 | BST | Input | | Bus communication serial data input pin |
| 16 | BSO | Output | C | Bus communication serial data output pin |
| 17 | BSCK | Input/Output | C | Bus communication serial clock input/output pin f=65kHz |
| 18 | BSRQ | Input | | Bus communication service request input pin |
| 19 22 | MD3 MD0 | Input | | Mechanism switch sense input pins |
| 23 | RDSLK | Input | | Not used |
| 24 | TP | Input | | Not used |
| 25 | TA | Input | | Not used |
| 26 | BRXEN | Input | | Bus communication reception enable input pin |
| 27 30 | KD3 KDU | Input | | Key data input pins |
| 31 | N. C | | | |

| Pin No. | Pin Name | I/O | Output Format | Function and Operation |
|----------------|-----------------|--------|---------------|---|
| 32 | VDD | | | Device power supply terminal |
| 33 | LTNH | Output | C | Inhibit output pin for LCD driver(IC901) |
| 34 | LCE | Output | C | Chip enable output pin for LCD driver(IC901) |
| 35 | EXLD | Output | C | Data load output pin for expander(IC707, 708) |
| 36 | P. OUT | Output | C | Pulse output pin for watch dog timer(IC704) |
| 37 | EXDT | Output | C | Data output pin for external IC |
| 38 | EXCK | Output | C | Clock output pin for external IC |
| 39 | EXCE | Output | C | Chip enable pin for expander(IC707, 708) |
| 40 | RDSMT | Output | C | Not used |
| 41 44 | STD STA | Output | C | Mechanism switch, strobe output pins |
| 45 | RESET | Input | | Reset input pin |
| 46 47 | X2 X1 | | | Crystal oscillator connection pins |
| 48 | EDI | Input | | Serial data output pin for EEPROM(IC702) |
| 49 | ECE | Output | C | Chip enable pin for EEPROM(IC702) |
| 50 | TX/RX | Output | C | Bus communication TX(Transmission)/RX(Reception) control output pin |
| 51 | PCE | Output | C | PLL IC(IC451) chip enable pin |
| 52 | BRST | Output | C | Bus communication reset output pin |
| 53 | BBUSY | Output | C | Bus communication busy output pin |
| 54 | MUTE | Output | C | System mute output pin |
| 55 | RDSINH | Output | C | Not used |
| 56 57 58 | 12 11 10 | Output | C | Data output pins for mechanism driver(IC710) |
| 59 | STBYT | Output | C | Standby output pin for mechanism driver(IC710) |
| 60 | CM | Output | C | Capstan motor ON/OFF control output pin |
| 61 | VCK | Output | C | Clock output pin for electronic volume(IC522) |
| 62 | VDT | Output | C | Data output pin for electronic volume(IC522) |
| 63 | SYSPW | Output | C | Power amplifier power ON/OFF control output pin |

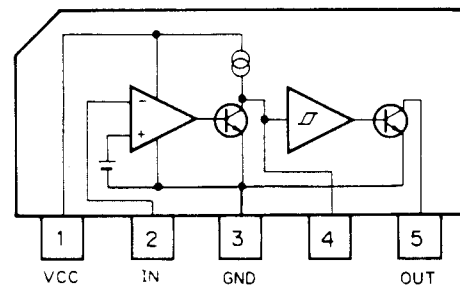
| Pin No. | Pin Name | I/O | Output Format | Function and Operation |
|---------|----------|-----|---------------|------------------------|
| 64 | VSS | | | GND terminal |

| Output format | Meaning |
|---------------|----------------------|
| N | N channel open drain |
| C | C-MOS |

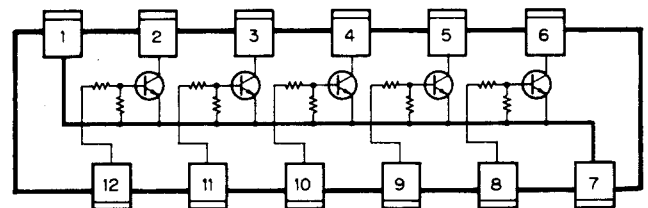
PDH001



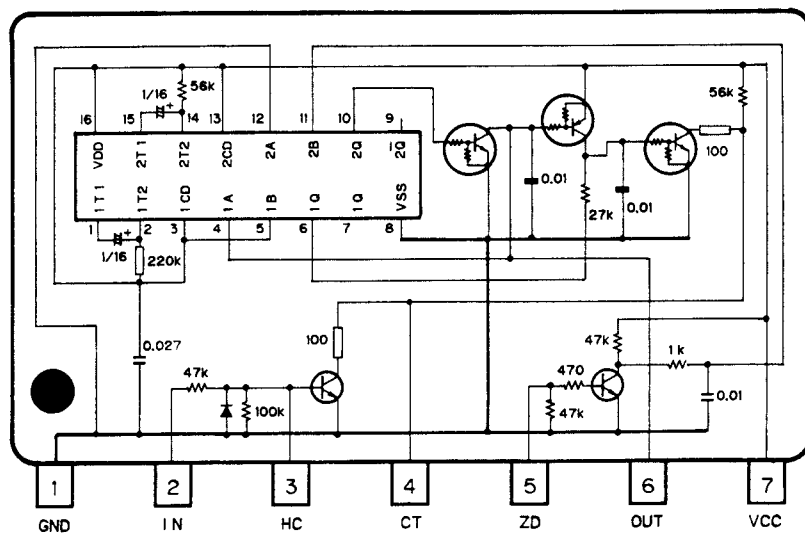
M51957BL



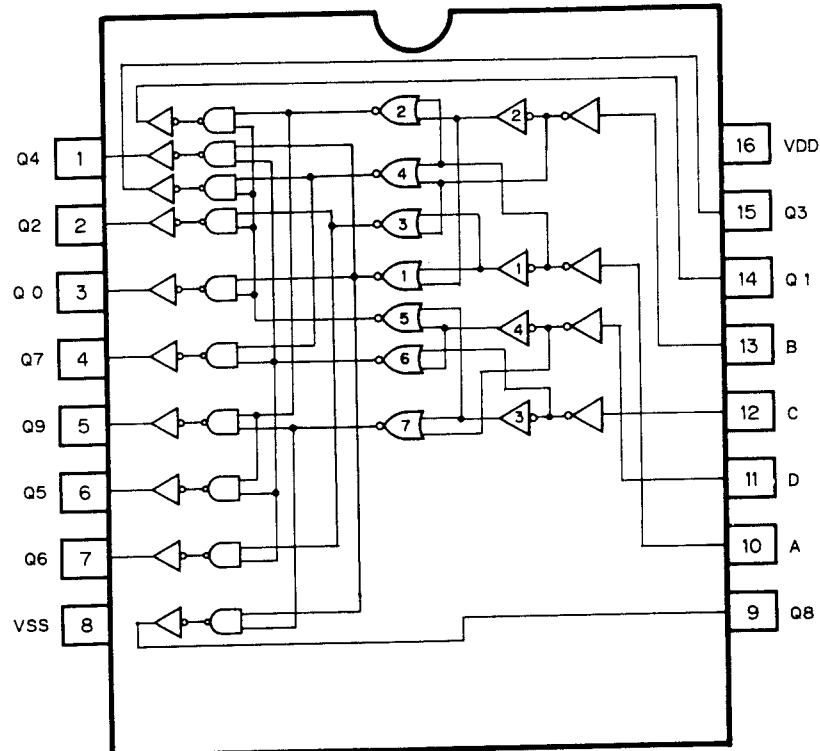
DT5C144E



CWV1001



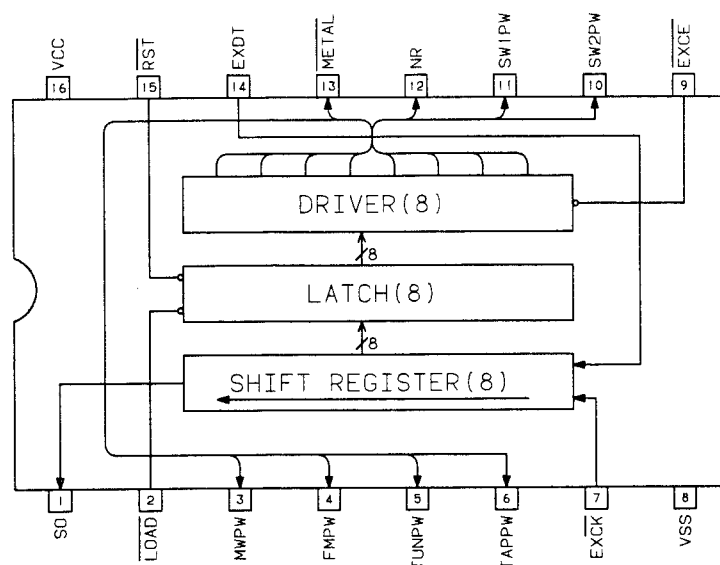
TC4028BP



• Pin Function (TC4028BP)

| Pin No. | Pin Name | I/O | Output Format | Function and Operation |
|---------|----------|--------|---------------|--------------------------------------|
| 1 | KST1 | Output | C | Key matrix strobe output pins |
| 2 | KST3 | | | |
| 3 | KST0 | | | |
| 4 | KST2 | | | |
| 5 | KST4 | | | |
| 6 | KST5 | | | |
| 7 | KST6 | | | |
| 8 | VSS | | | GND terminal |
| 9 | MST0 | Output | C | Mechanism switch, strobe output pins |
| 14 | MST1 | | | |
| 15 | MST2 | | | |
| 10 | A | Input | | Data input pins |
| 11 | D | | | |
| 12 | C | | | |
| 13 | B | | | |
| 16 | VDD | | | Device power supply terminal |

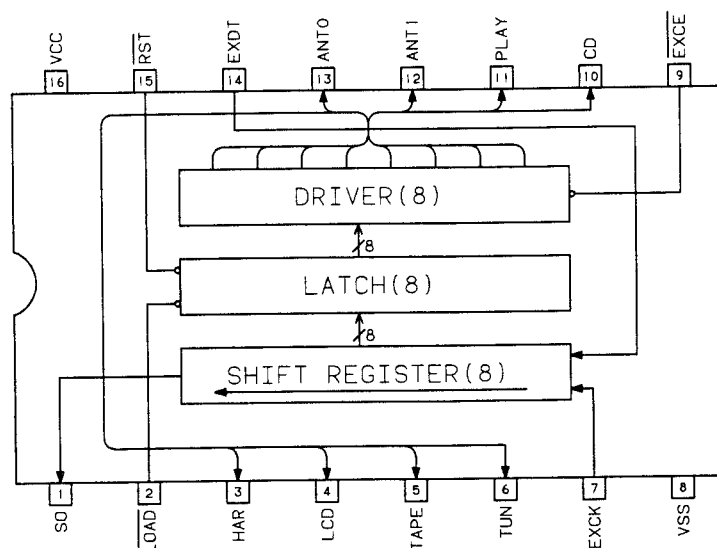
IC707 : MB88306P



• Pin Function (IC707 : MB88306P)

| Pin No. | Pin Name | I/O | Output Format | Function and Operation |
|---------|----------|--------|---------------|-------------------------------------|
| 1 | SO | Output | C | Serial data output pin |
| 2 | LOAD | Input | | Data load input pin |
| 3 | MWPW | Output | C | MW+B ON/OFF select output pin |
| 4 | FMPW | Output | C | FM+B ON/OFF select output pin |
| 5 | TUNPW | Output | C | Tuner+B ON/OFF select output pin |
| 6 | TAPPW | Output | C | Tape+B ON/OFF select output pin |
| 7 | EXCK | Input | | Clock input pin |
| 8 | VSS | | | GND terminal |
| 9 | EXCE | Input | | Chip enable input pin |
| 10 | SW2PW | Output | C | SW2+B ON/OFF select output pin |
| 11 | SW1PW | Output | C | SW1+B ON/OFF select output pin |
| 12 | NR | Output | C | Dolby NR ON/OFF select output pin |
| 13 | METAL | Output | C | Tape METAL ON/OFF select output pin |
| 14 | EXDT | Input | C | Serial data output pin |
| 15 | RST | Input | | Reset input pin |
| 16 | VDD | | | Device power supply terminal |

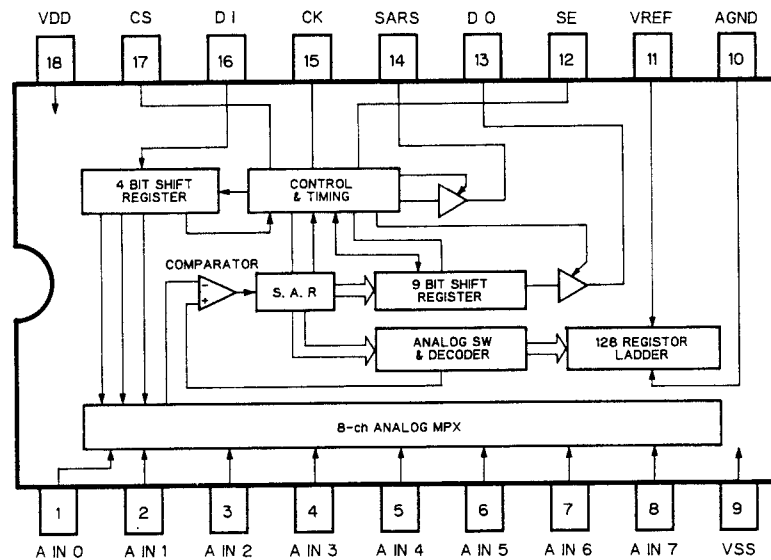
IC708 : MB88306P



• Pin Function (IC708 : MB88306P)

| Pin No. | Pin Name | I/O | Output Format | Function and Operation |
|---------|----------|--------|---------------|---|
| 1 | SO | Output | C | Serial data output pin |
| 2 | LOAD | Input | | Data load input pin |
| 3 | HAR | Output | C | Not used |
| 4 | LCD | Output | C | Lamp of LCD ON/OFF control output pin |
| 5 | TAPE | Output | C | Lamp of TAPE ON/OFF control output pin |
| 6 | TUN | Output | C | Lamp of TUNER ON/OFF control output pin |
| 7 | EXCK | Input | | Clock input pin |
| 8 | VSS | | | GND terminal |
| 9 | EXCE | Input | | Chip enable input pin |
| 10 | CD | Output | C | Lamp of CD ON/OFF control output pin |
| 11 | PLAY | Output | C | Tape MS filter select output pin |
| 12 | ANT1 | Output | C | ANT1 control output pin |
| 13 | ANTO | Output | C | ANTO control output pin |
| 14 | EXDT | Input | C | Serial data output pin |
| 15 | RST | Input | | Reset input pin |
| 16 | VDD | | | Device power supply terminal |

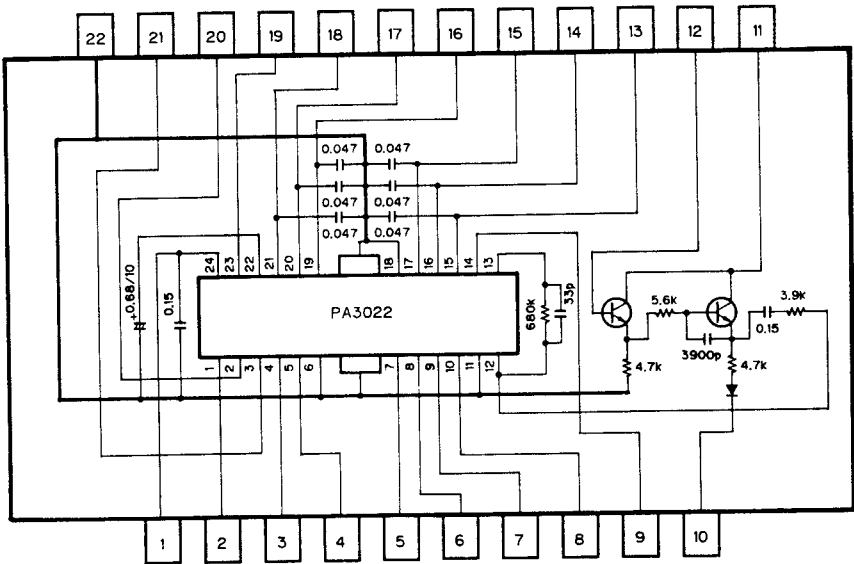
TC35095P



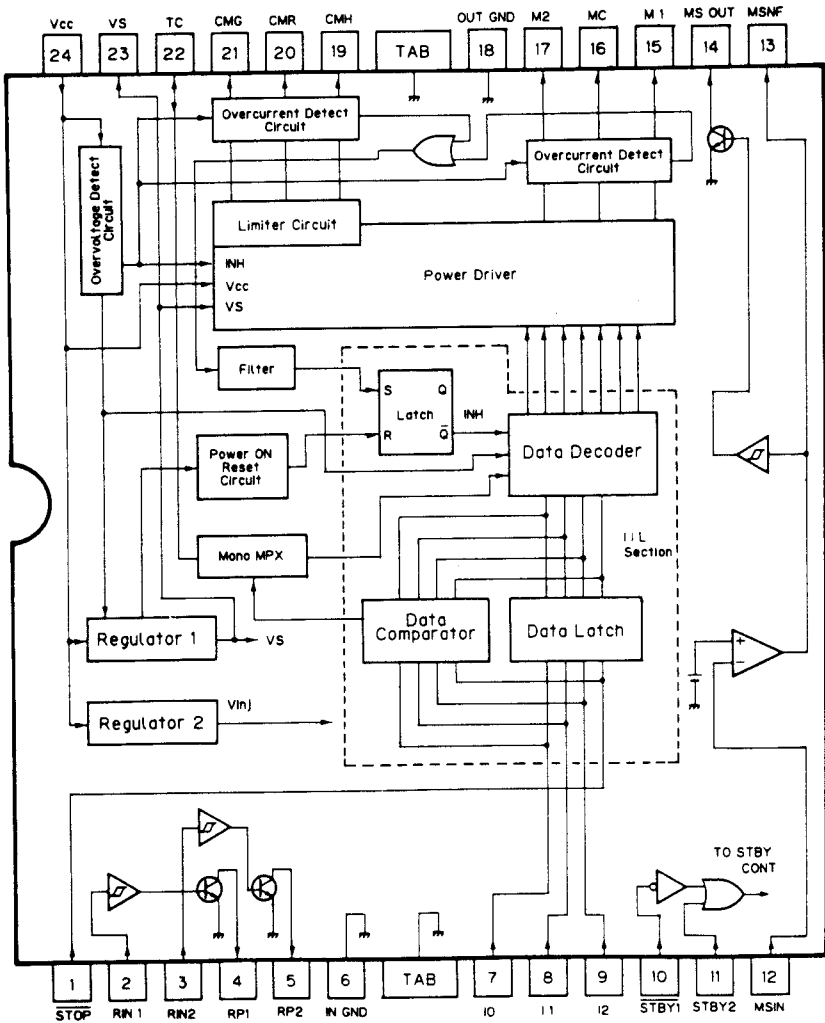
• Pin Function (TC35095P)

| Pin No. | Pin Name | I/O | Output Format | Function and Operation |
|---------|----------|--------|---------------|------------------------------|
| 1 | N. C | | | Not used |
| 2 | N. C | | | Not used |
| 3 | BASS | Input | | BASS level input terminal |
| 4 | TRE | Input | | TREBLE level input terminal |
| 5 | FAD | Input | | FADER level input terminal |
| 6 | MAIN | Input | | VOLUME level input terminal |
| 7 | BAL | Input | | BALANCE level input terminal |
| 8 | MID | Input | | MIDDLE level input terminal |
| 9 | VSS | | | GND terminal |
| 10 | AG | | | Analog GND terminal |
| 11 | VREF | Input | | Reference voltage input pin |
| 12 | SE | Input | | Not used |
| 13 | DO | Output | C | Serial data output pin |
| 14 | SARS | Output | C | Status output pin |
| 15 | EXCK | Input | | Serial clock input pin |
| 16 | EXDT | Input | | Data input pin |
| 17 | ACE | Input | | Chip enable input pin |
| 18 | VDD | | | Device power supply terminal |

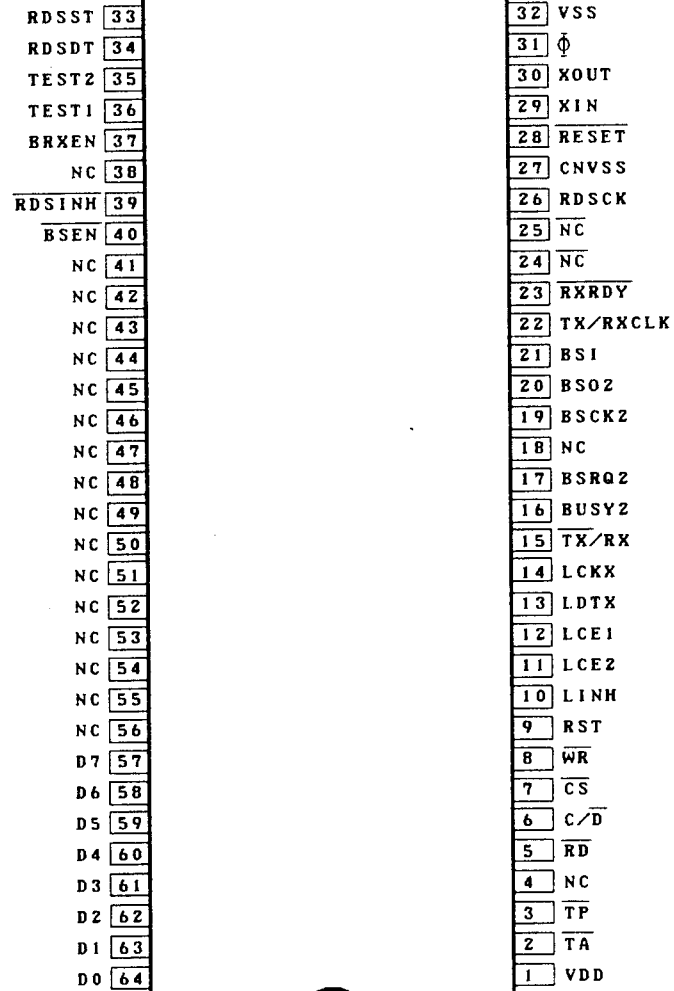
CWV1178



PA3022



*PD5094

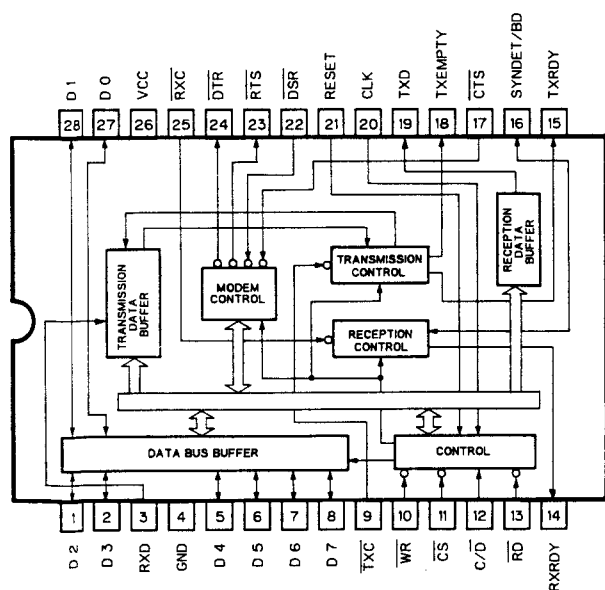


• Pin Function (PD5094)

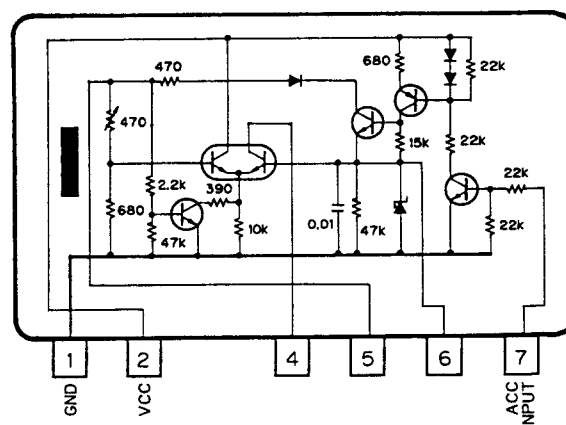
| Pin No. | Pin Name | I/O | Output Format | Function and Operation |
|---------|-----------|--------------|---------------|---|
| 1 | VDD | | | Device power supply terminal |
| 2 | TA | Output | C | Not used |
| 3 | TP | Output | C | Not used |
| 4 | NC | | | |
| 5 | RD | Output | C | Read signal output pin for IC752 |
| 6 | C/D | Output | C | Control/Data switching signal output pin for IC752 |
| 7 | CS | Output | C | Chip select signal output pin for IC752 |
| 8 | WR | Output | C | Write signal output pin for IC752 |
| 9 | RST | Output | C | Reset signal output pin for IC752 |
| 10 | LINH | Output | C | Not used |
| 11 | LCE2 | Output | C | Not used |
| 12 | LCE1 | Output | C | Not used |
| 13 | LDTX | Output | C | Not used |
| 14 | LCKX | Output | C | Not used |
| 15 | TX/RX2 | Output | C | Bus communication TX(Transmission)/RX(Reception) control output pin |
| 16 | BUSY2 | Output | C | Bus communication busy output pin |
| 17 | BSRQ2 | Output | C | Bus communication service request output pin |
| 18 | NC | | | |
| 19 | BSCK2 | Input/Output | C | Bus communication serial clock input/output pin f=19.2kHz |
| 20 | BSO2 | Output | C | Bus communication serial data output pin |
| 21 | BSI | Input | | Bus communication serial data input pin |
| 22 | TX/RX CLK | Output | C | Communication sampling clock output pin for IC753 f=76.8kHz |
| 23 | RXRDY | Input | | Reception request input pin |
| 24 | NC | | | |
| 25 | NC | | | |
| 26 | RDCK | Input | | Not used |
| 27 | CNVSS | Input | | GND |

| Pin No. | Pin Name | I/O | Output Format | Function and Operation |
|---------------|----------------|------------------|---------------|---|
| 28 | RESET | Input | | Reset input pin |
| 29 30 | XIN XOUT | Input Output | C | Crystal oscillator connection pins |
| 31 | Φ | Output | C | Clock output pin for IC752 $f=1,228,800\text{Hz}$ |
| 32 | VSS | | | GND |
| 33 | RDSST | Input | | Not used |
| 34 | RSDST | Input | | Not used |
| 35 36 | TEST2 TEST1 | Input | | Not used |
| 37 | BRXEN | Input | | Bus communication reception enable input pin |
| 38 | NC | | | |
| 39 | RDSINH | Input | | Not used |
| 40 | BSEN | Input | | Back up power sense input pin |
| 41 56 | NC | | | |
| 57 64 | D7 D0 | Input/ Output | | Data input/output pins for IC752 |

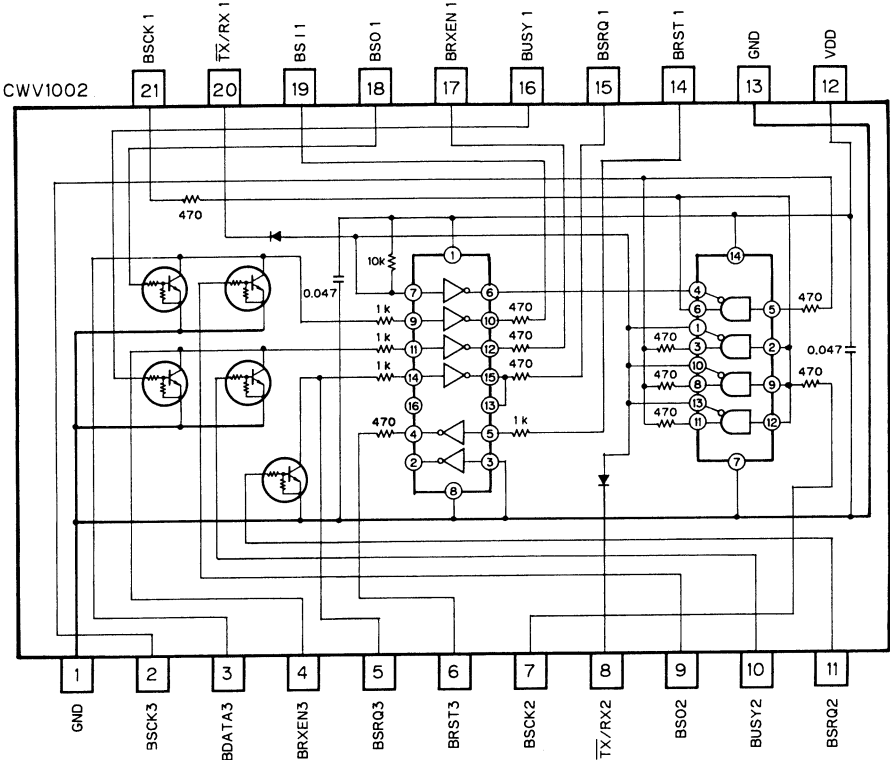
MSM82C51A-2RS-H



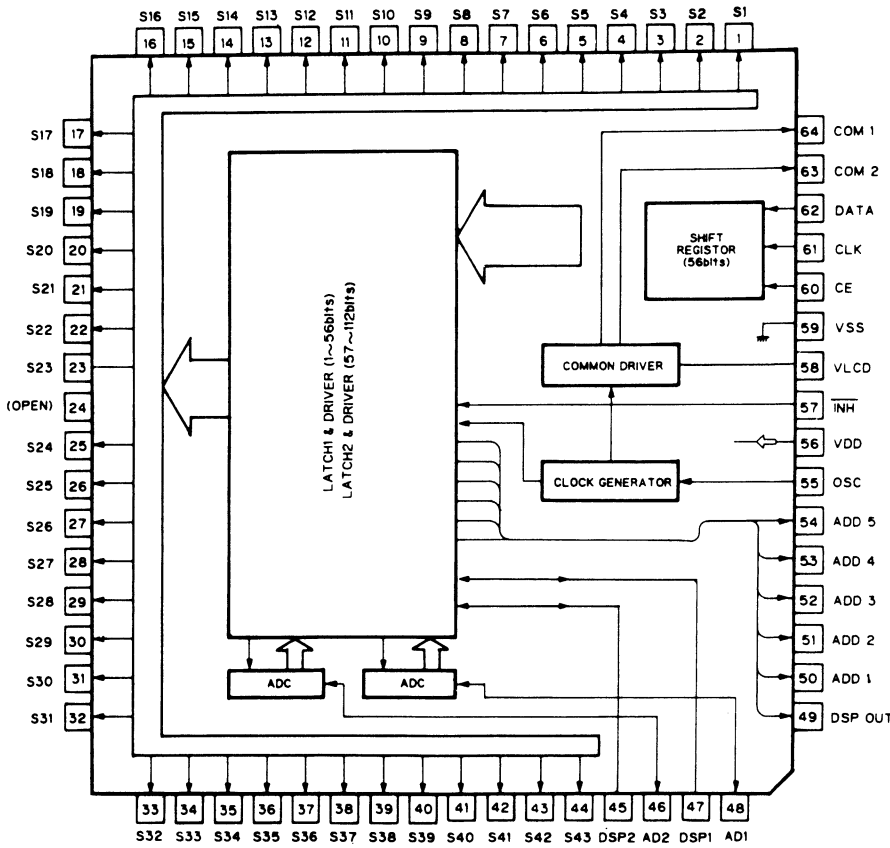
KHA241



CWV1002

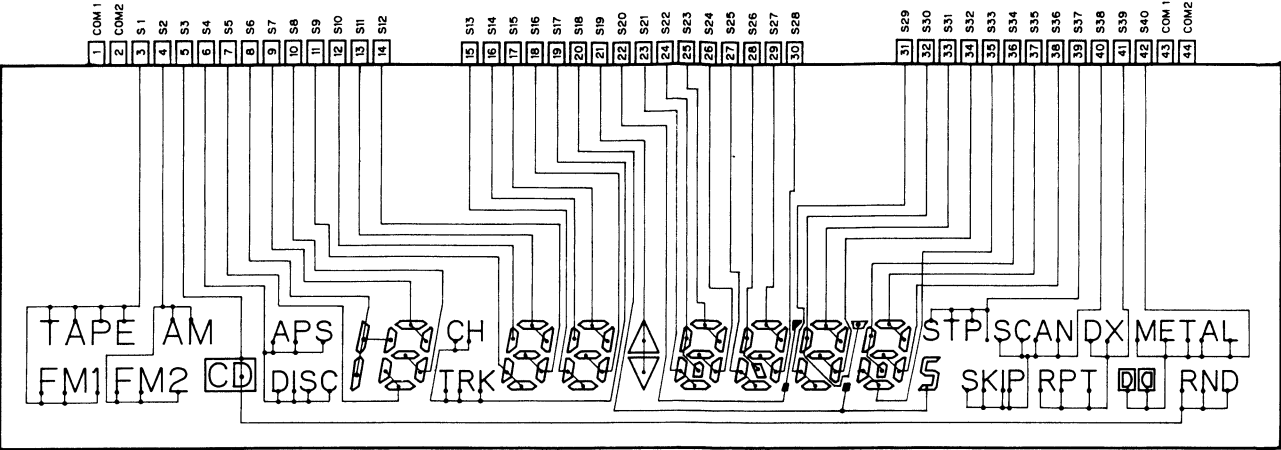


LC7582P



• LCD (CWA1044)

SEGMENT



COMMON

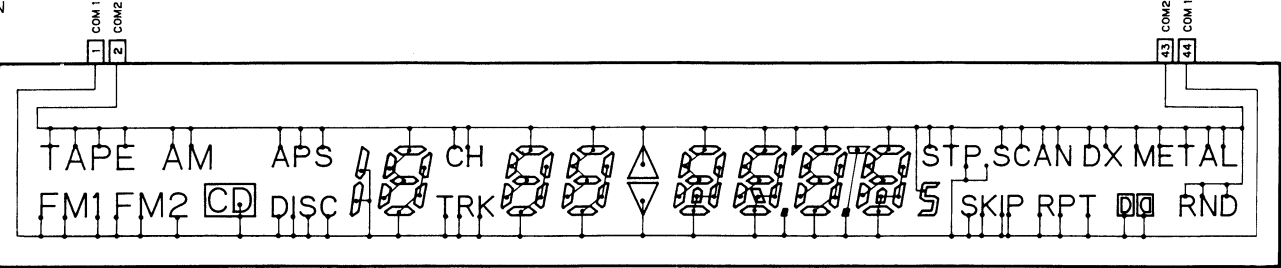


Fig. 43

• FM FRONT END (CWB1039)

NOTE
Decimal points for resistor
and capacitor fixed values
are expressed as:
2.2→2R2
0.022→R022

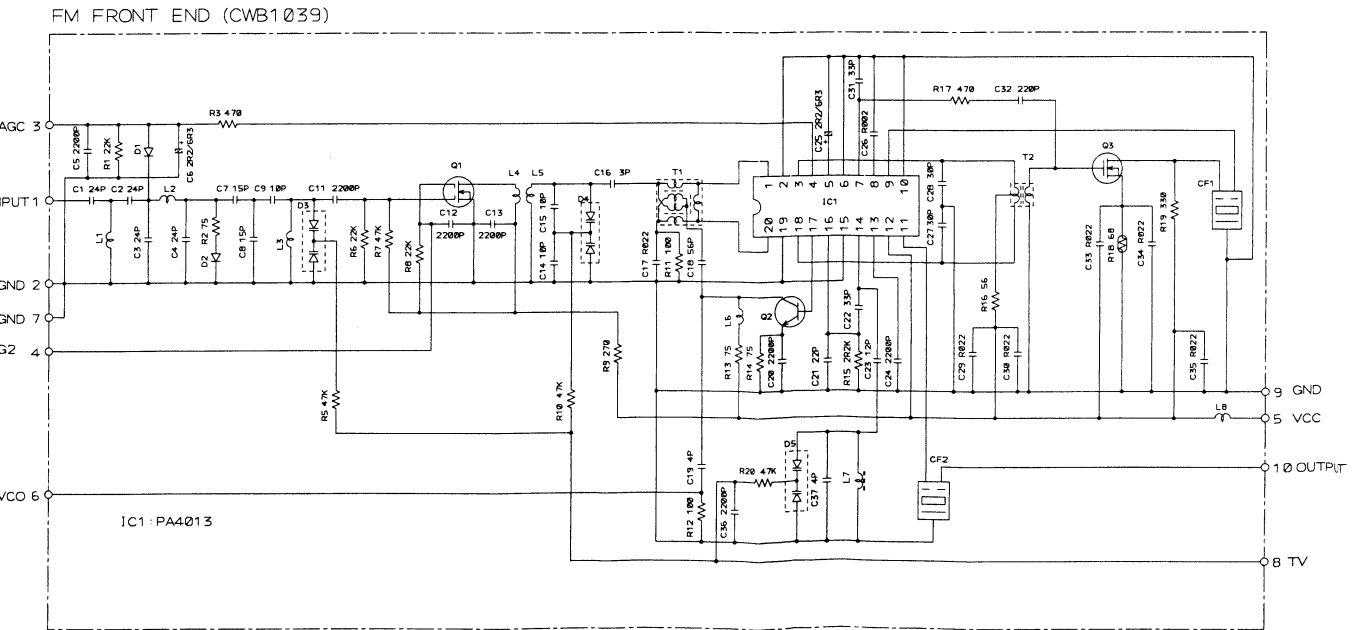
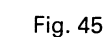
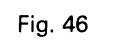


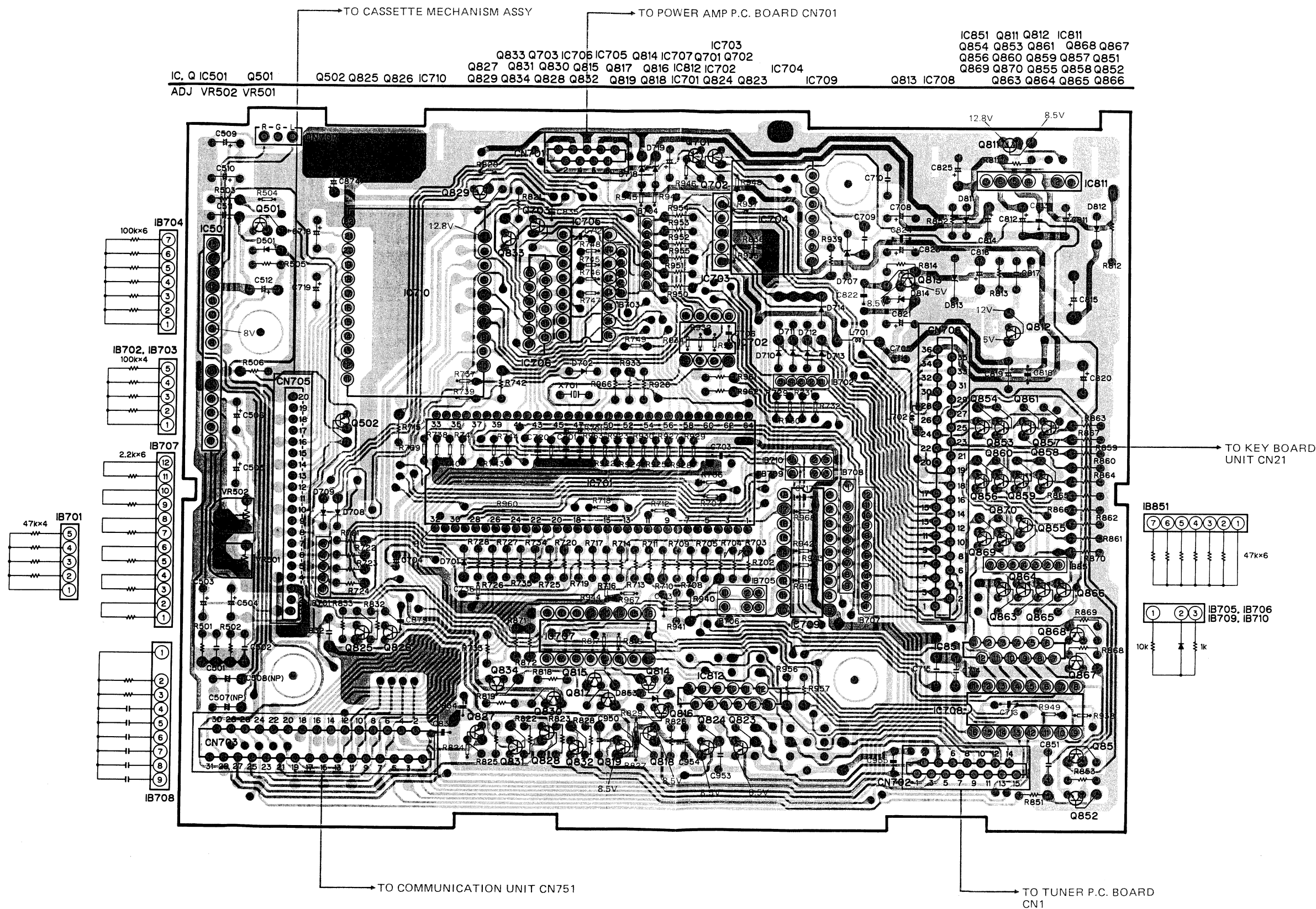
Fig. 44





10. SCHEMATIC DIAGRAM AND P.C. BOARD PATTERNS

10.1 CONTROL UNIT (KEH-M9741ZT, KEH-M9741ZT-02)



1

2

3

4

5

CONTROL UNIT

| | |
|---|------------|
| 0501, 703, 831, 832, 833, 852, 867, 869 | DTC144ES |
| 0502 | DTA144ES |
| 0701, 702, 816, 817 | 2SC2458 |
| 0811 | 2SB942 |
| 0812 | 2SC3474 |
| 0813 | 2SD1859 |
| 0814, 815 | DTC144TS |
| 0818, 819, 825, 830, 868 | 2SB1243 |
| 0823, 824 | DTB133HV |
| 0826, 834 | DTC114ES |
| 0827, 828, 829 | 2SB1243 |
| 0851, 863, 864, 865, 866, 870 | DTB113ZV |
| 0853, 854, 855, 856, 857, 858, 859, 860, 861 | 2SD1859 |
| D501, 701, 702, 708, 709, 710, 711, 712, 713, 714 | ISS133 |
| D707 | HZ3LLB |
| 718, 719 | RD7R5JSB3 |
| D811 | RD6R2JS1 |
| D812 | ERA15-02VH |
| D813 | HZ6LB1 |
| D814 | RD5R6JSB2 |
| D853 | RD5R1JSB1 |
| VR501, 502 | VRTB6VS471 |

ANT+B SWITCH

AMP+B SWITCH

ANT 0/ANT 1 SWITCH

BACK UP

ANT0, ANT1

SYSTEM CONTROLLER

DECK DRIVER IC710 CWW1178

RESET

WATCH DOG TIMER

DECODER

PRE AMP, DOLBY NR IC501 KHA147A

DOLBY ADJUSTMENT POINT

CN707

DOLBY NR SWITCH

METAL SWITCH

KEY STROBE DRIVER IC706 DT5C144E

TEST TAPE 315Hz 160mWb/m

-72.8dBm

AUDIO+B

AUDIO+B

TO CASSETTE MECHANISM ASSY

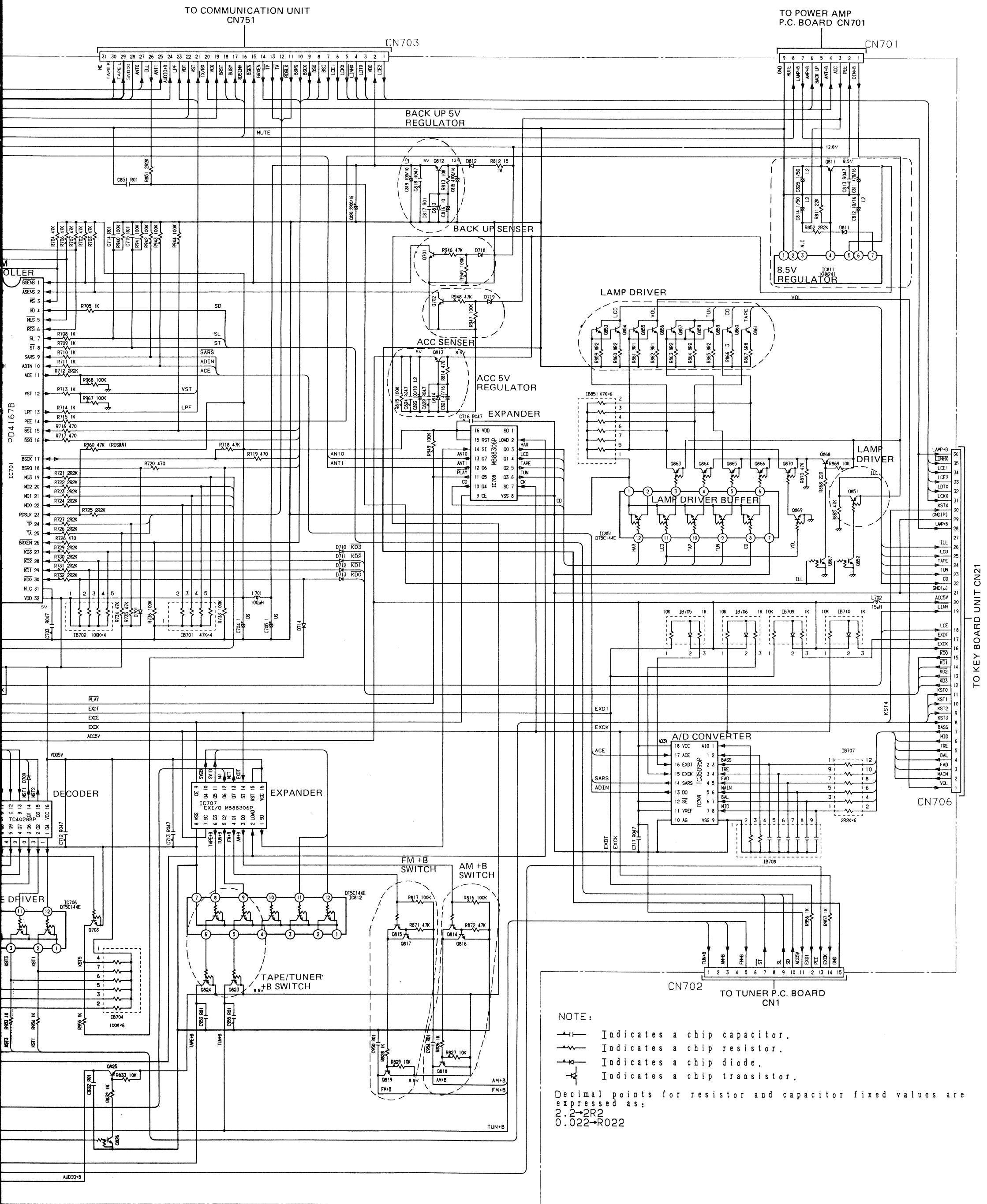
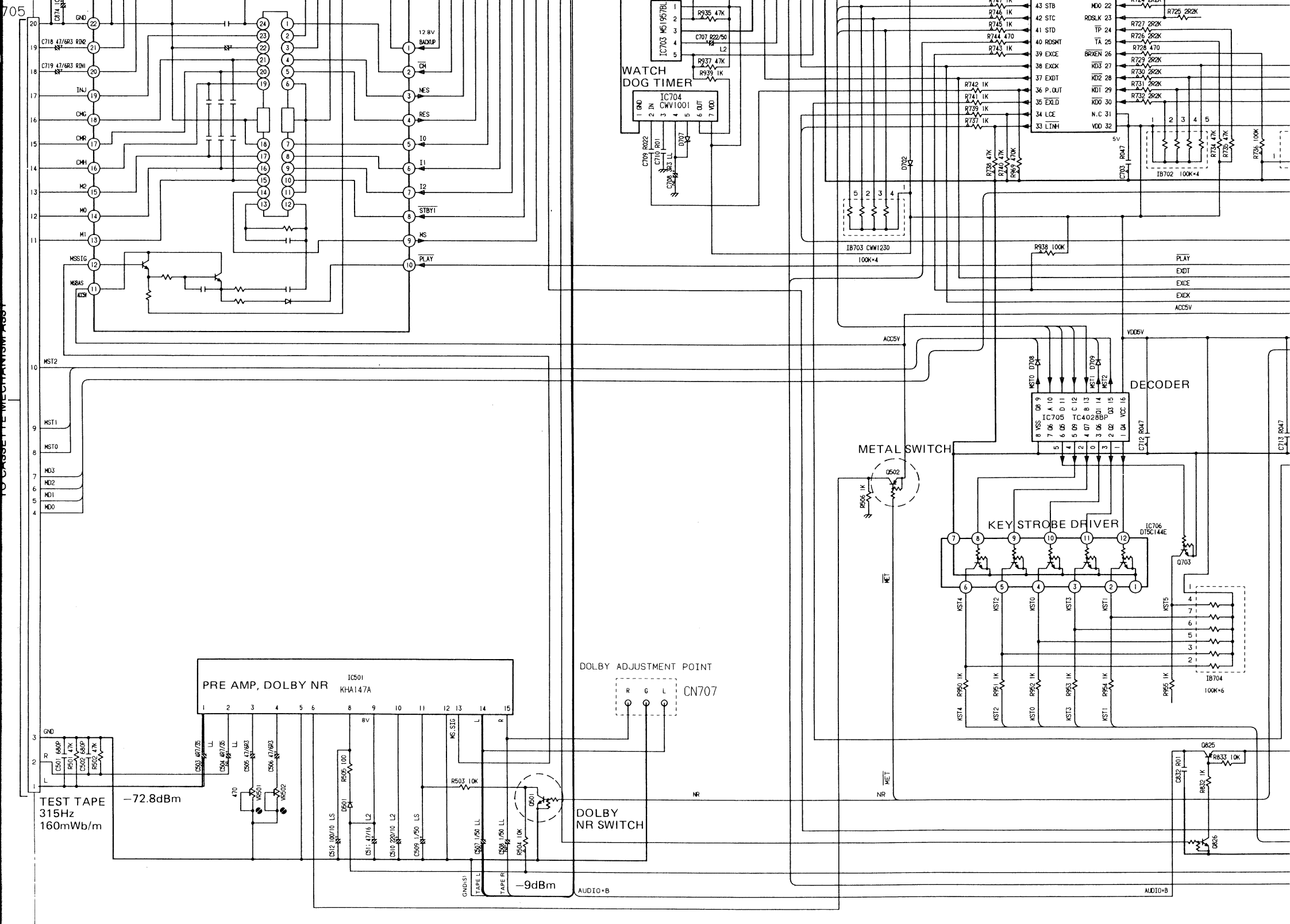


Fig. 48

CONTROL UNIT

| | |
|---|------------|
| Q501, 703, 831, 832, 833, 852, 867, 869 | DTC144ES |
| Q502 | DTA144ES |
| Q701, 702, 816, 817 | 2SC2458 |
| Q811 | 2SB942 |
| Q812 | 2SC3474 |
| Q813 | 2SD1859 |
| Q814, 815 | DTC144TS |
| Q818, 819, 825, 830, 868 | 2SB1243 |
| Q823, 824 | DTB133HV |
| Q826, 834 | DTC114ES |
| Q827, 828, 829 | 2SB1243 |
| Q851, 863, 864, 865, 870 | DTB113ZV |
| Q853, 854, 855, 856, 857, 858, 859, 861 | 2SD1859 |
| D501, 701, 702, 708, 709, 710, 711, 712, 713, 714 | ISS133 |
| D707 | HZ3LLB |
| 718, 719 | RD7R5JSB3 |
| D811 | RD6R2JS1 |
| D812 | ERA15-02VH |
| D813 | HZ6LB1 |
| D814 | RD5R6JSB2 |
| D853 | RD5R1JSB1 |
| VR501, 502 | VRTB6VS471 |



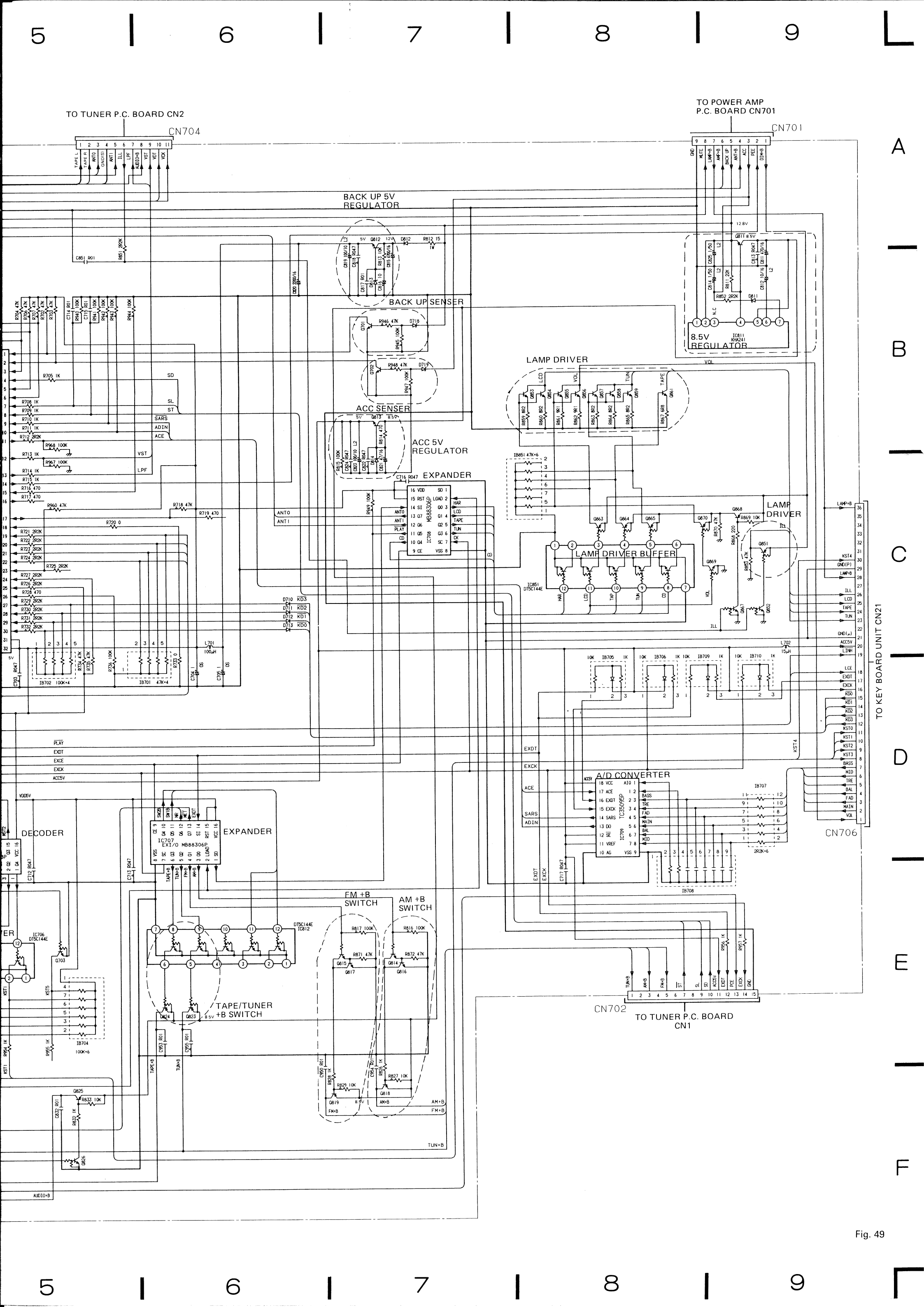


Fig. 49

1

2

3

4

5

A

B

C

D

A

B

C

D

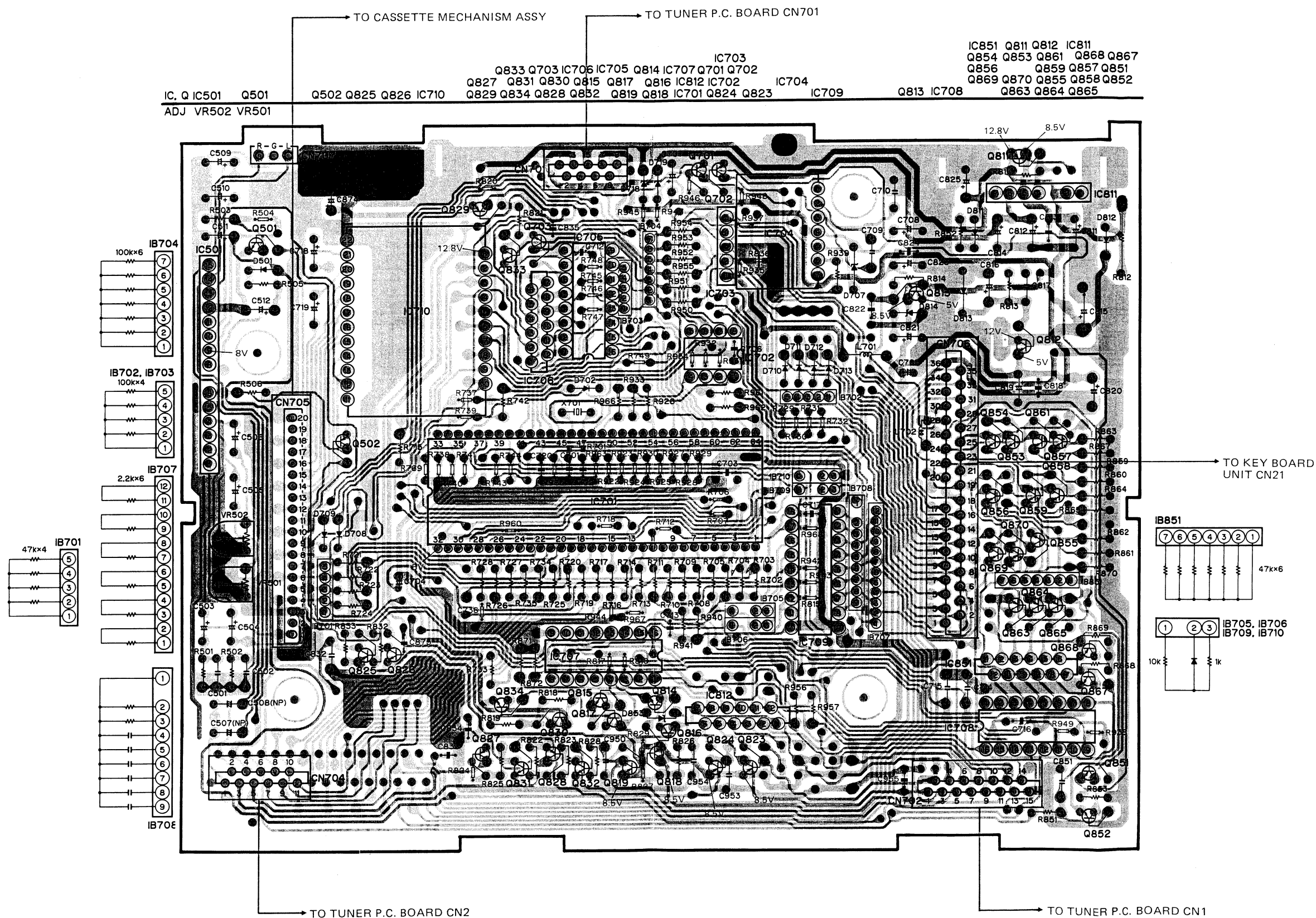


Fig. 50

1

2

3

4

5

6

60

61





64

10.4 TUNER P.C. BOARD (KEH-9641ZT, KEH-9641ZT-02)

TUNER P.C. BOARD

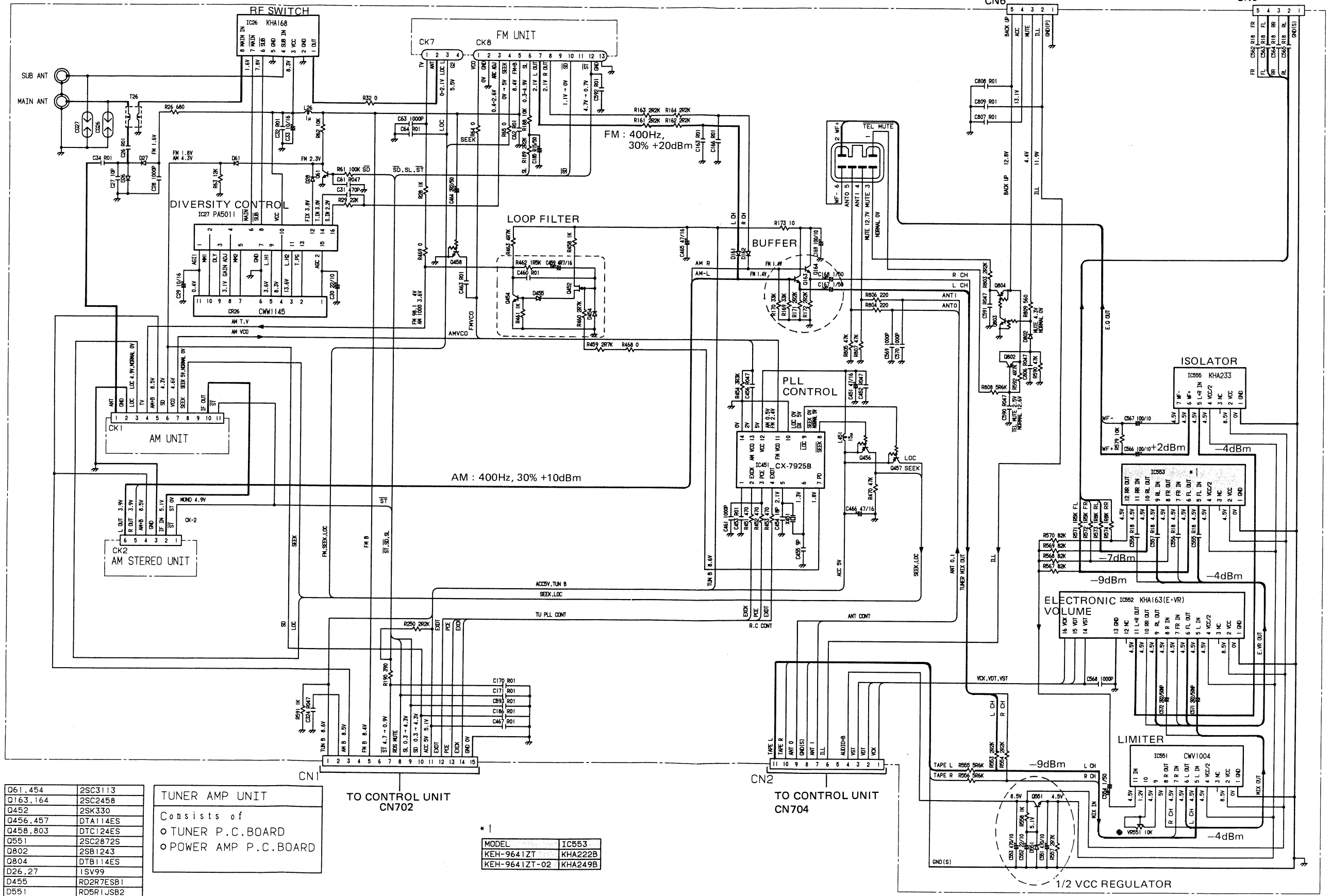


Fig. 53

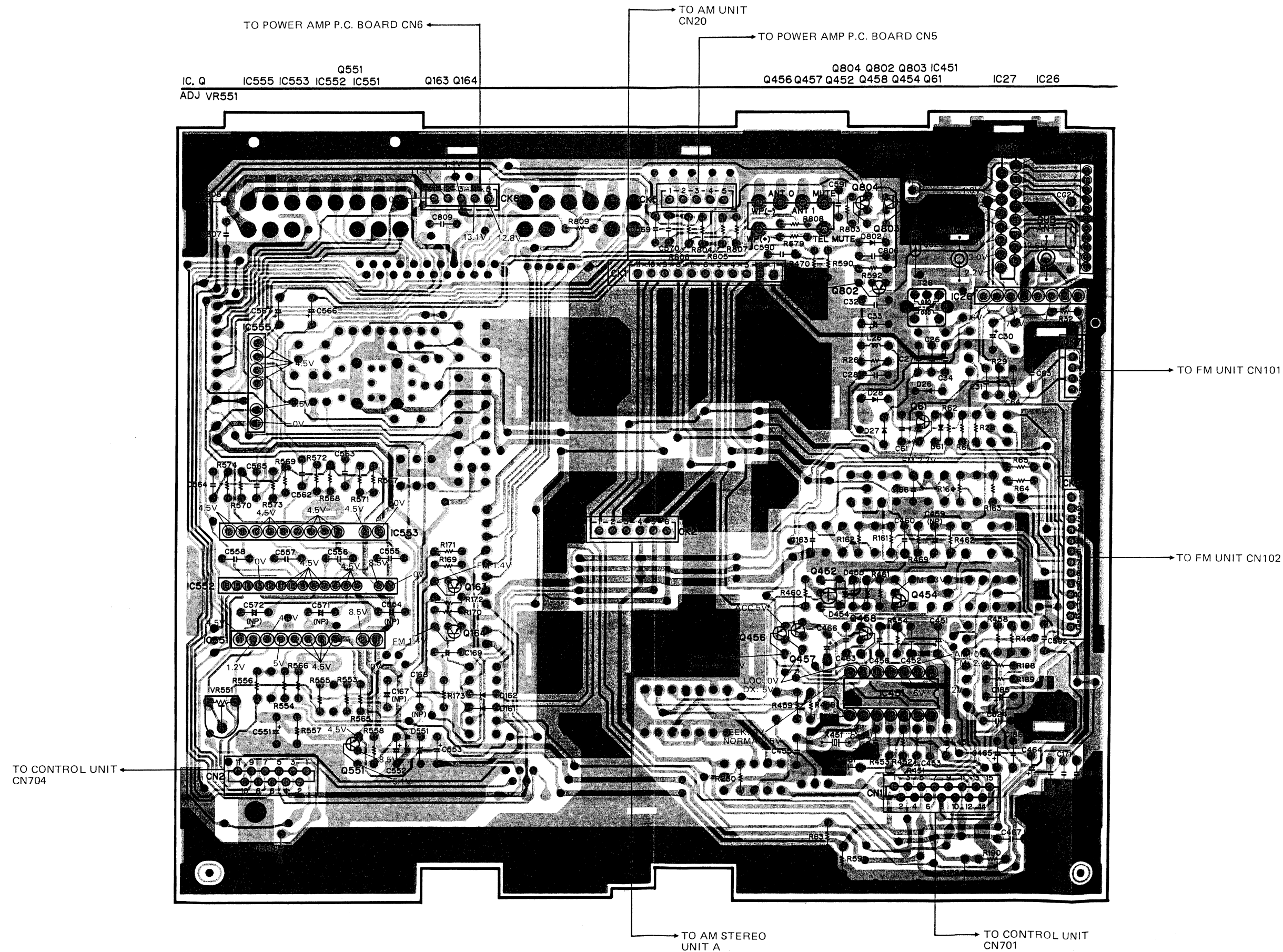
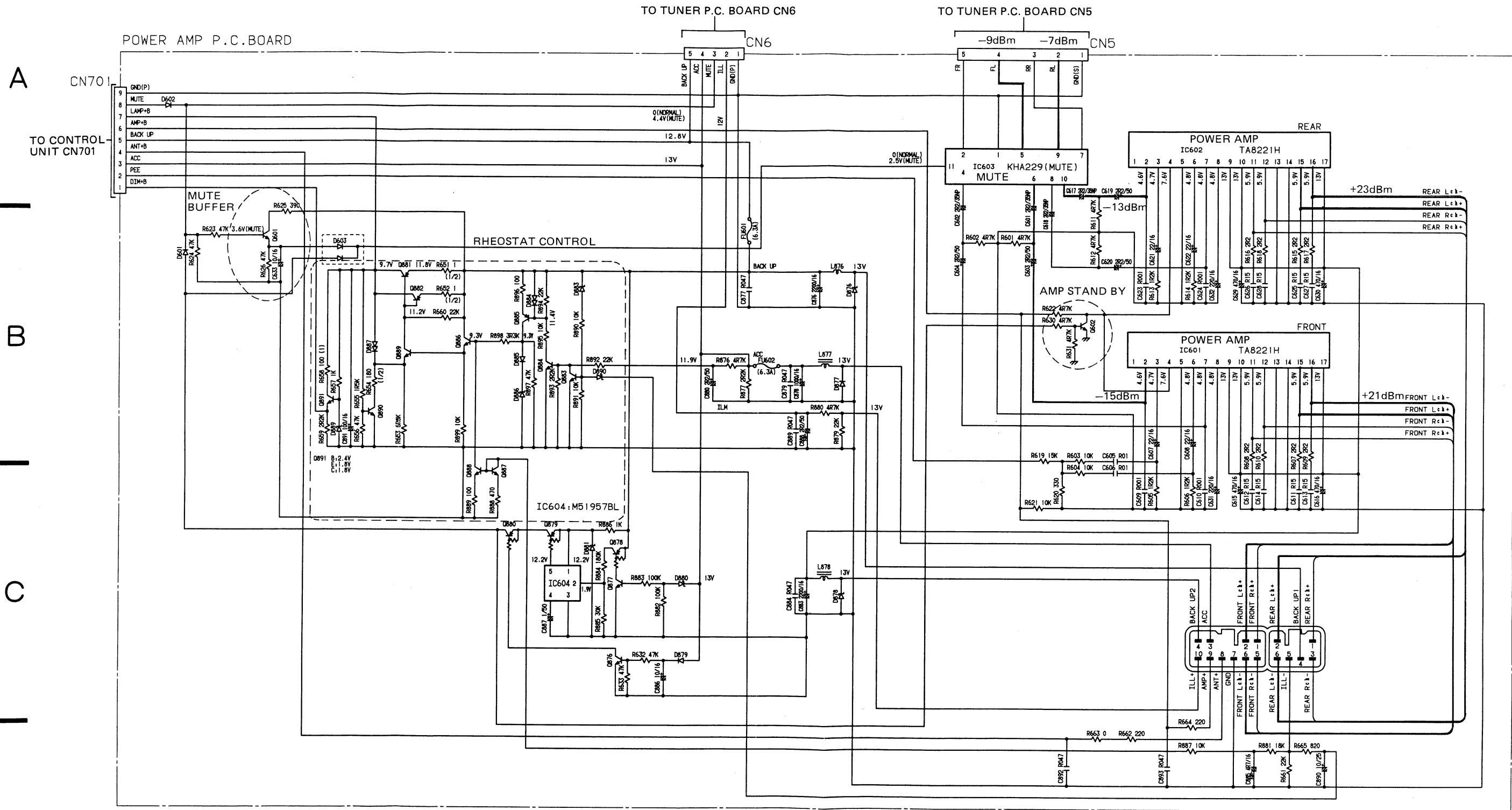


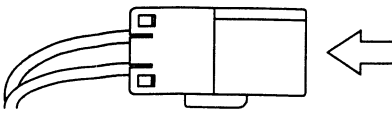
Fig. 54



| | |
|----------------------|------------|
| D551 | RD5R1JSB2 |
| D601,602,802,879,885 | ISS133 |
| D603 | MA204WK |
| D876,878 | 5Z27LC |
| D877 | SM3-08LFEA |
| D880 | RD8R2JSB2 |
| D881,883 | MTZ18JB |
| D884,887 | MA206 |
| D886 | RD8R2JSB2 |
| D890 | RD9R1JSB2 |
| D899 | HZ2CLL |

| | |
|--------------------------|----------|
| D601,602 | 2SC3665 |
| Q876,877 | 2SC1740S |
| Q878,879,880 | DTA114ES |
| Q881,882 | 2SB942 |
| Q883,884,886,887,888,890 | 2SC2458 |
| Q885 | 2SA1048 |
| Q889,891 | 2SD1859 |
| FU601,602 | CEK1008 |

TUNER AMP UNIT
Consists of
○ TUNER P.C. BOARD
○ POWER AMP P.C. BOARD



Connection is viewed from the direction of the arrow.

Fig. 55

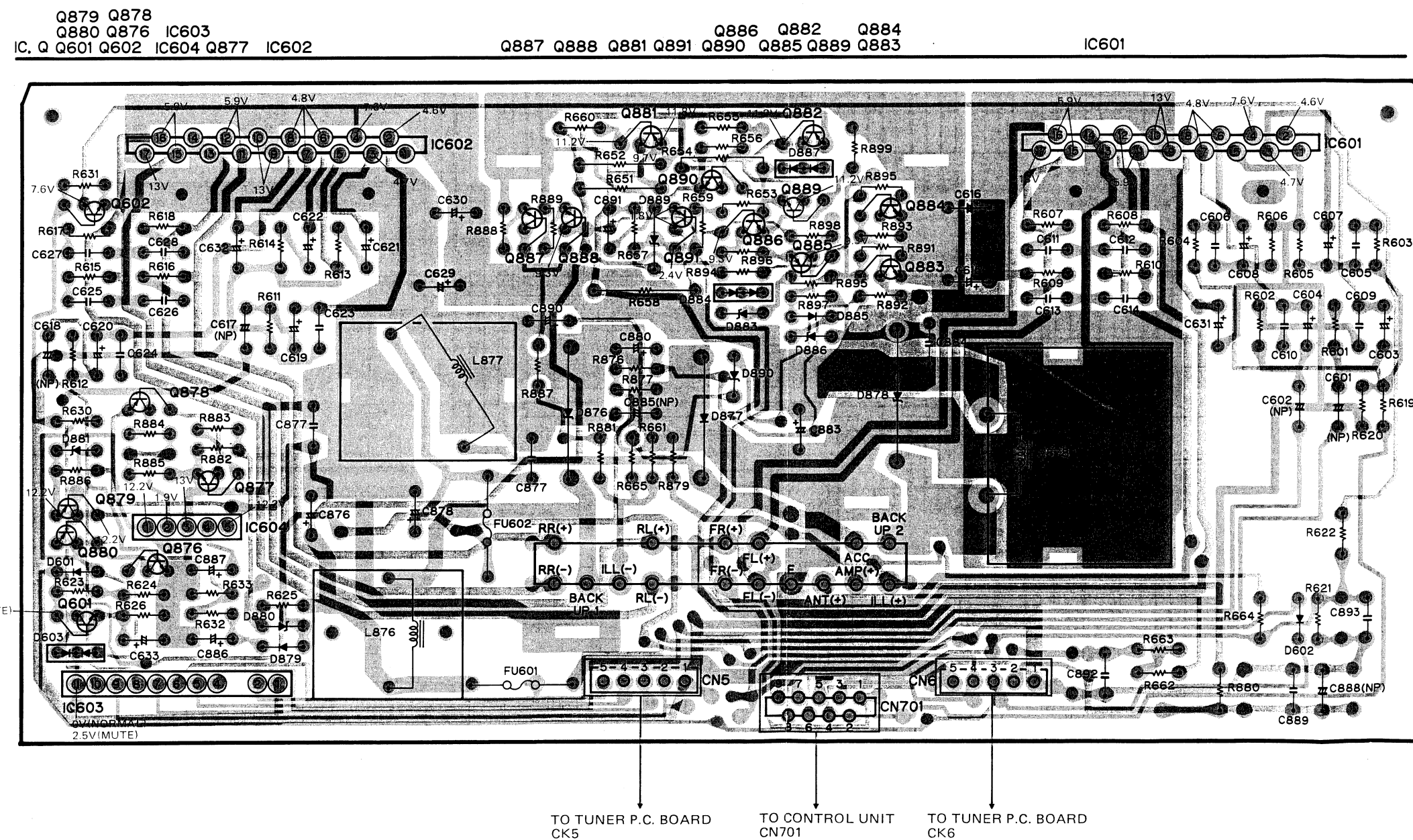






Fig. 56

10.6 COMMUNICATION UNIT (KEH-M9741ZT, KEH-M9741ZT-02)

COMMUNICATION UNIT

NOTE:

-  : Chip capacitor
-  : Chip resistor
-  : Chip diode
-  : Chip transistor

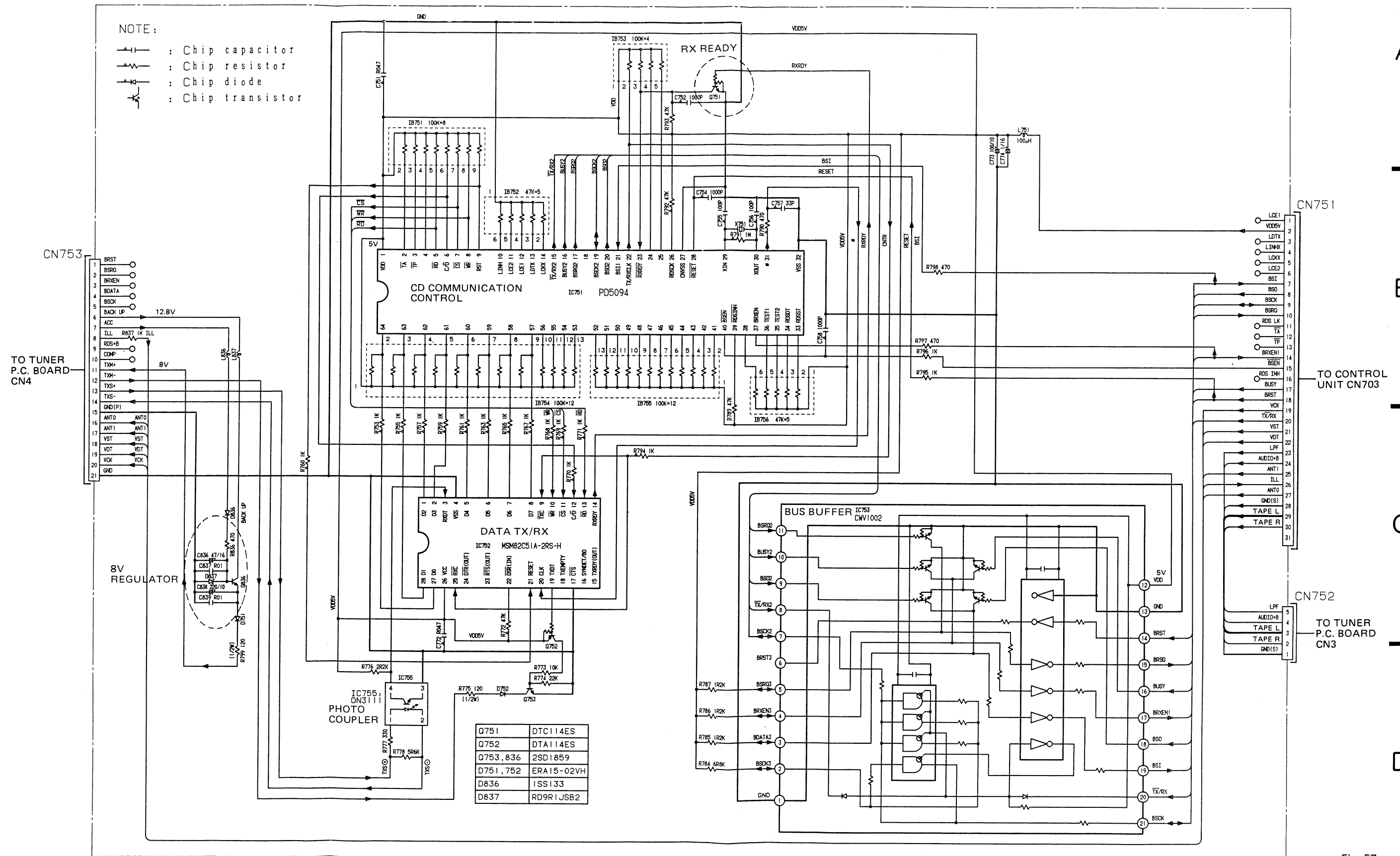


Fig. 57

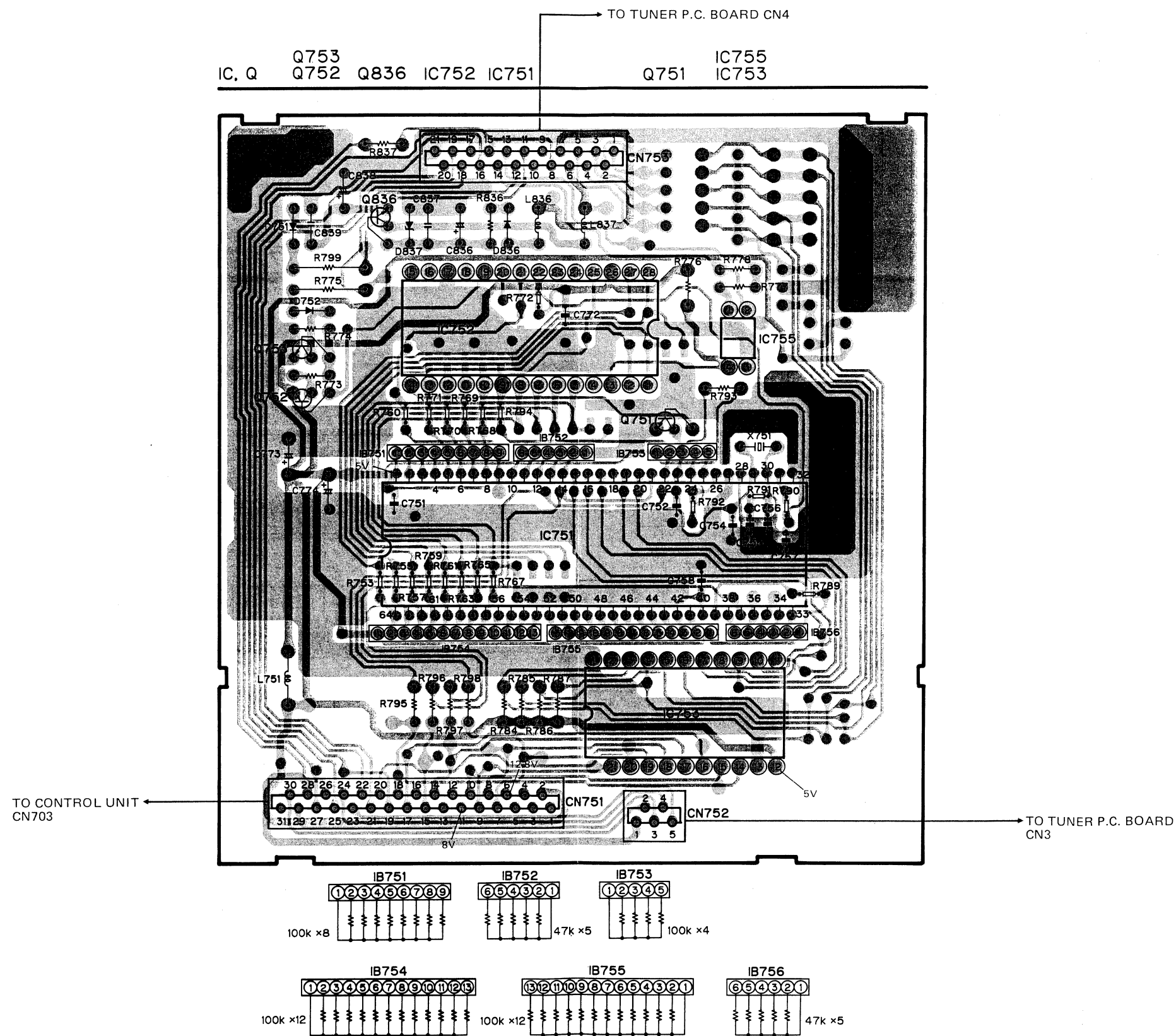


Fig. 58

10.7 KEY BOARD UNIT AND VOLUME UNIT

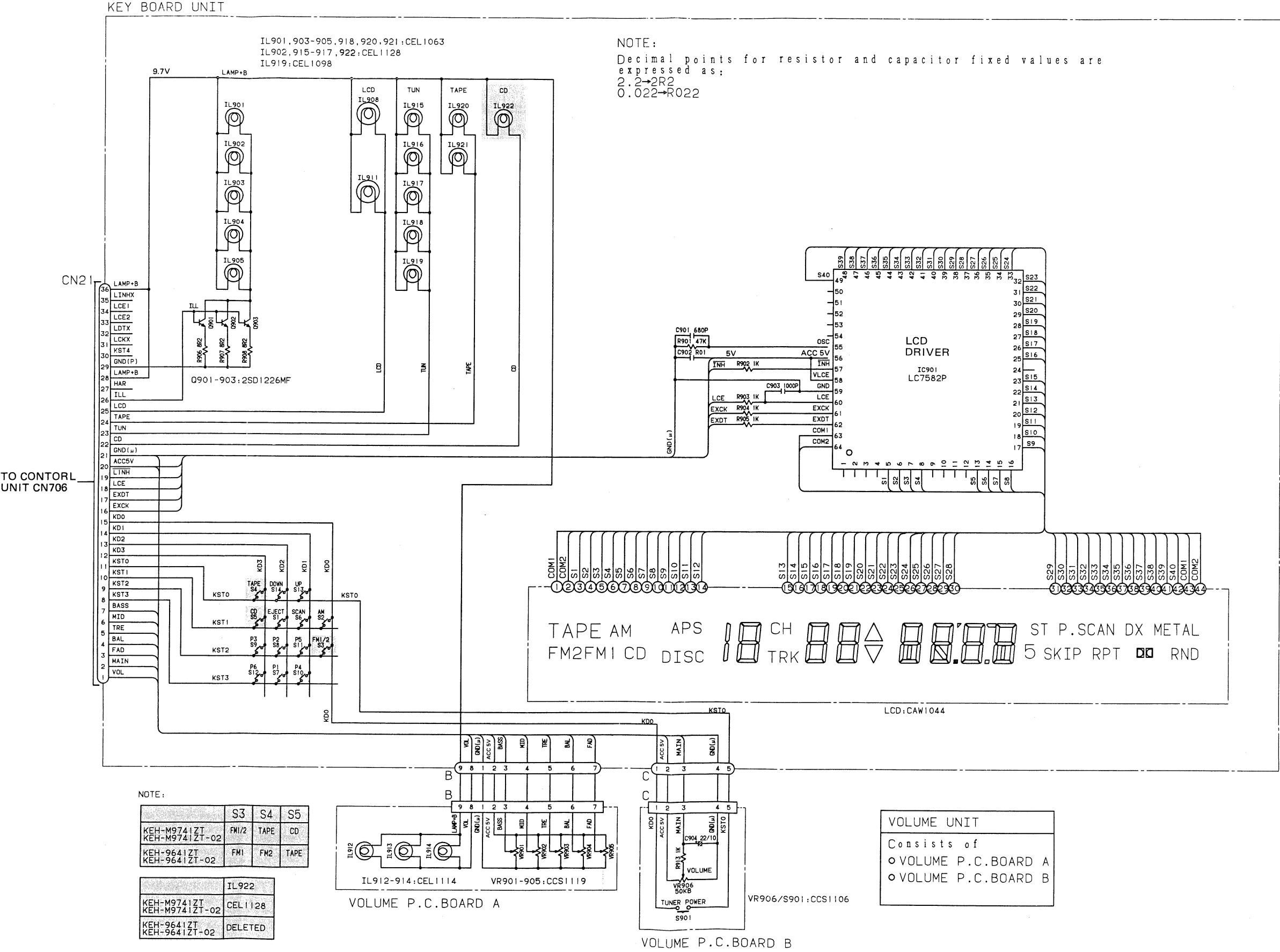


Fig. 59

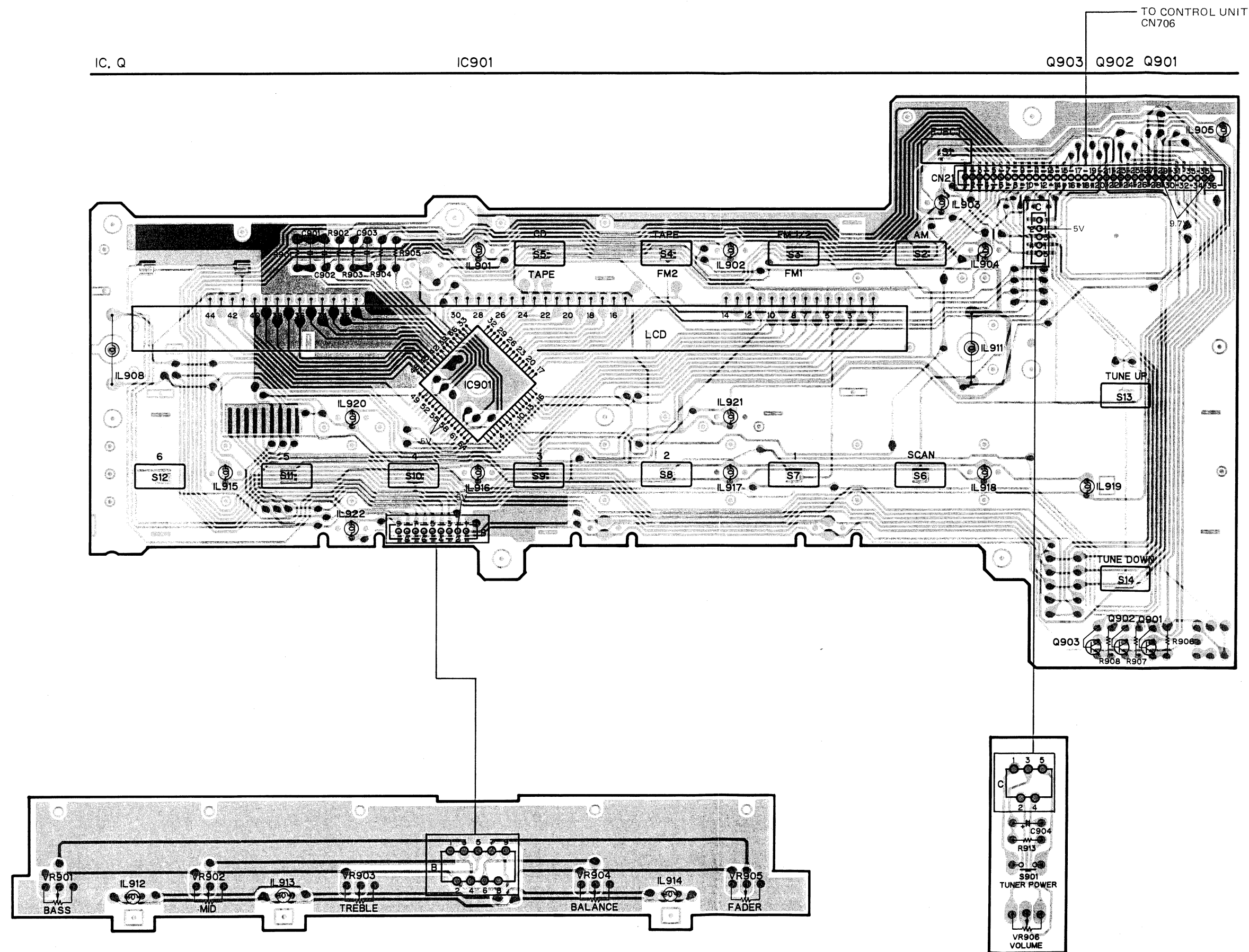


Fig. 60

10.8 CASSETTE MECHANISM ASSY

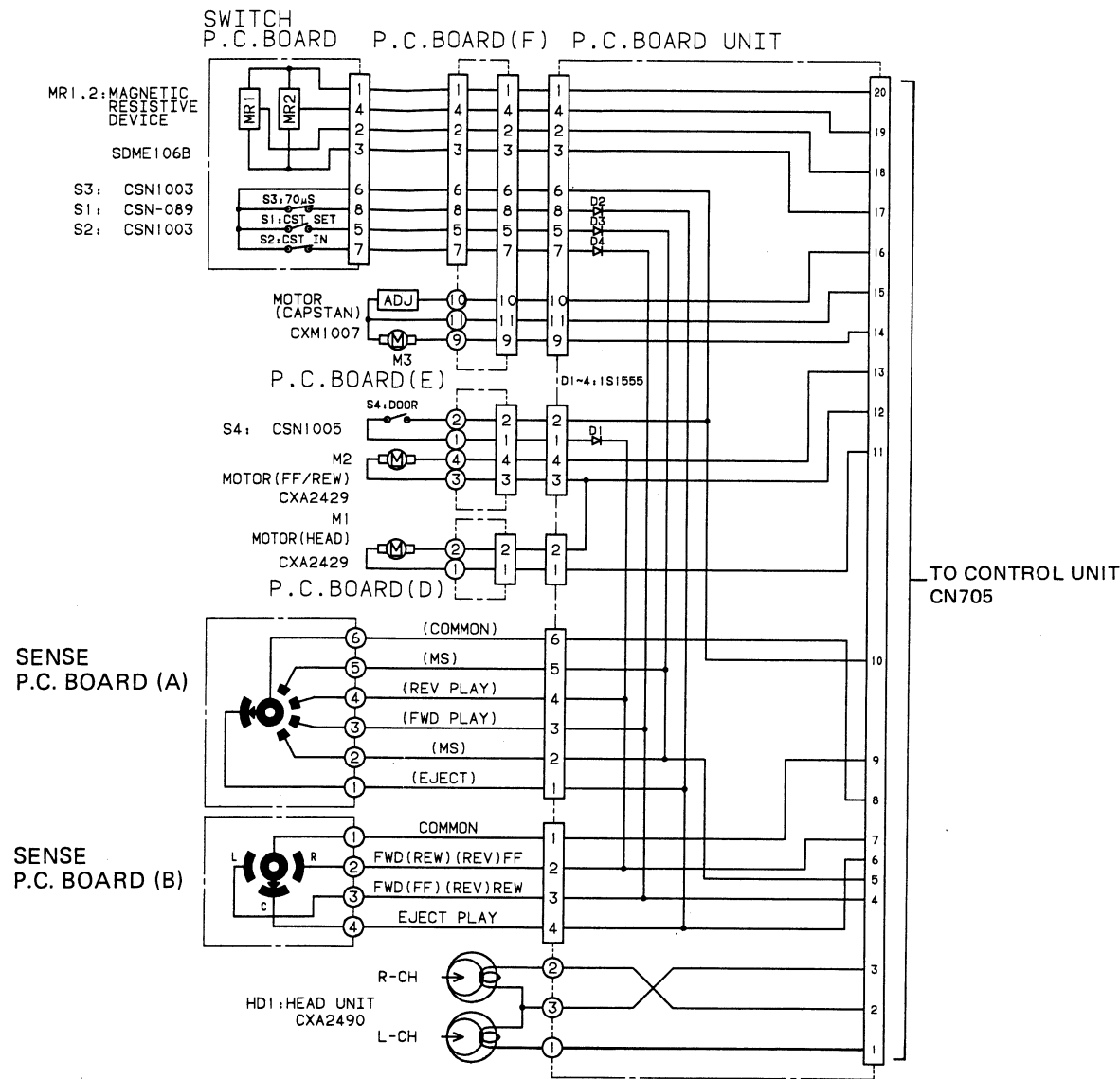


Fig. 61

- SWITCHES:
SWITCH P.C. BOARD
S1: CST SET SWITCH ON-OFF
S2: CST IN SWITCH ON-OFF
S3: 70μS SWITCH ON-OFF
MISCELLANEOUS
S4: DOOR SWITCH ON-OFF

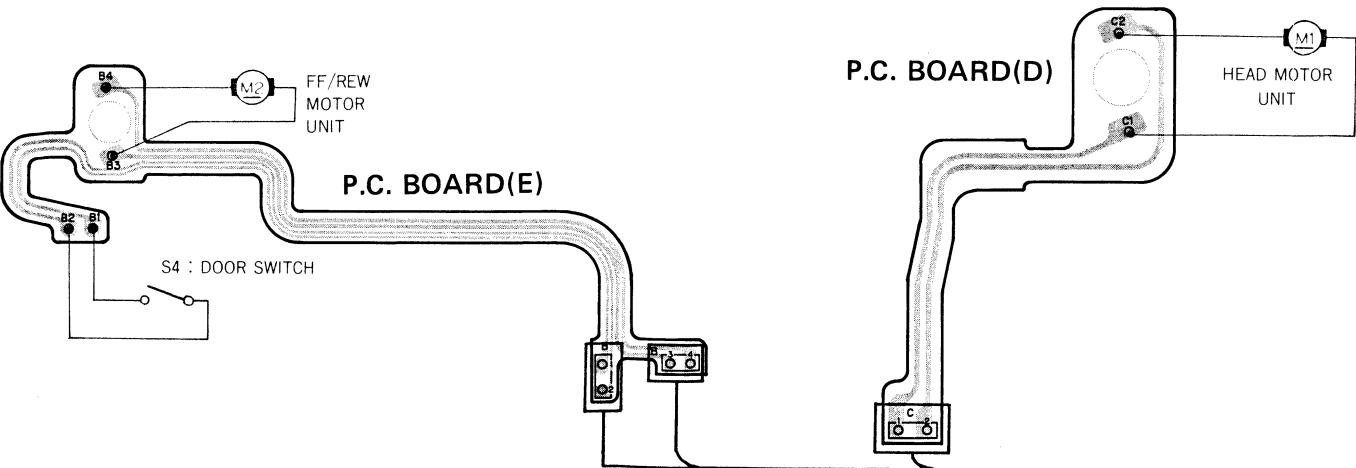
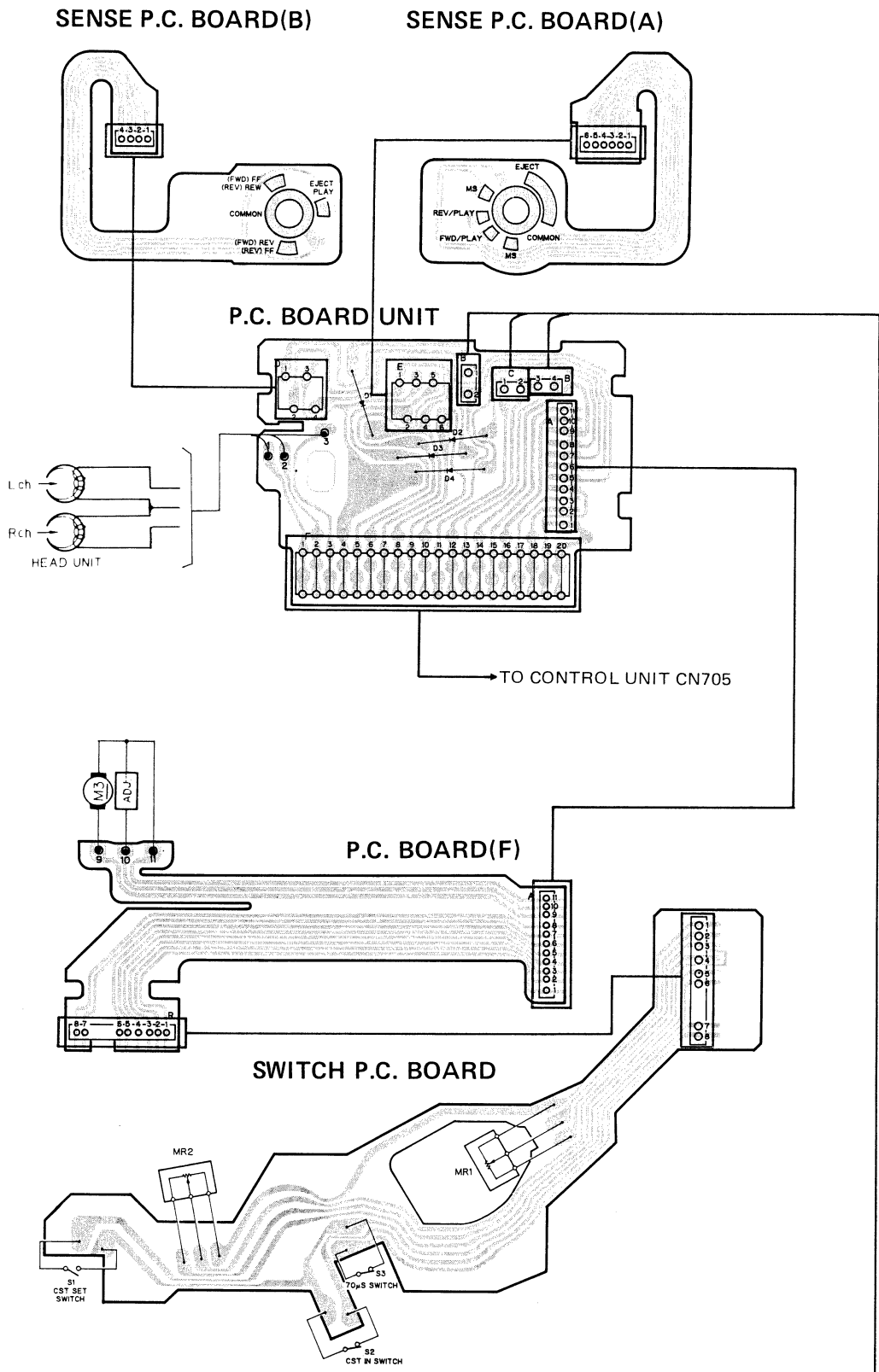


Fig. 62



10.9 FM UNIT

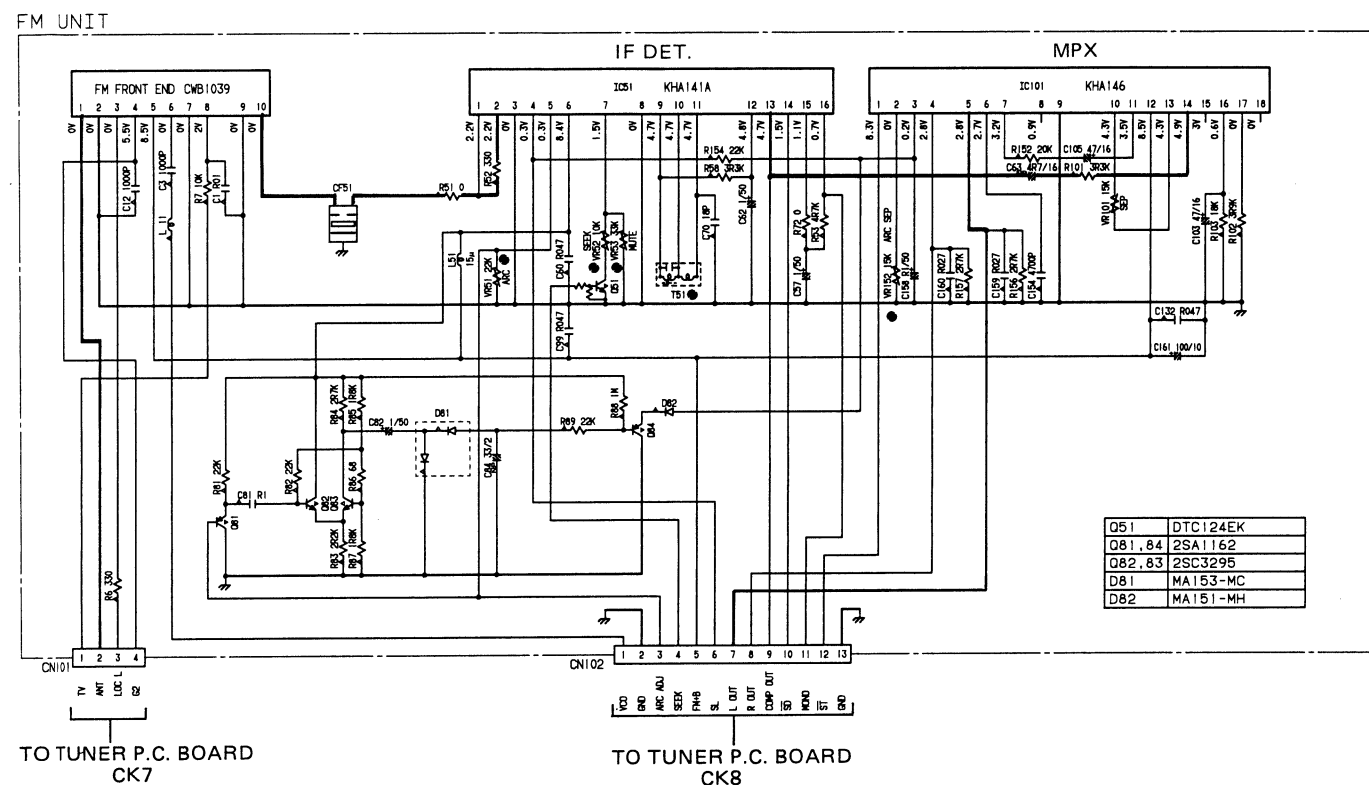
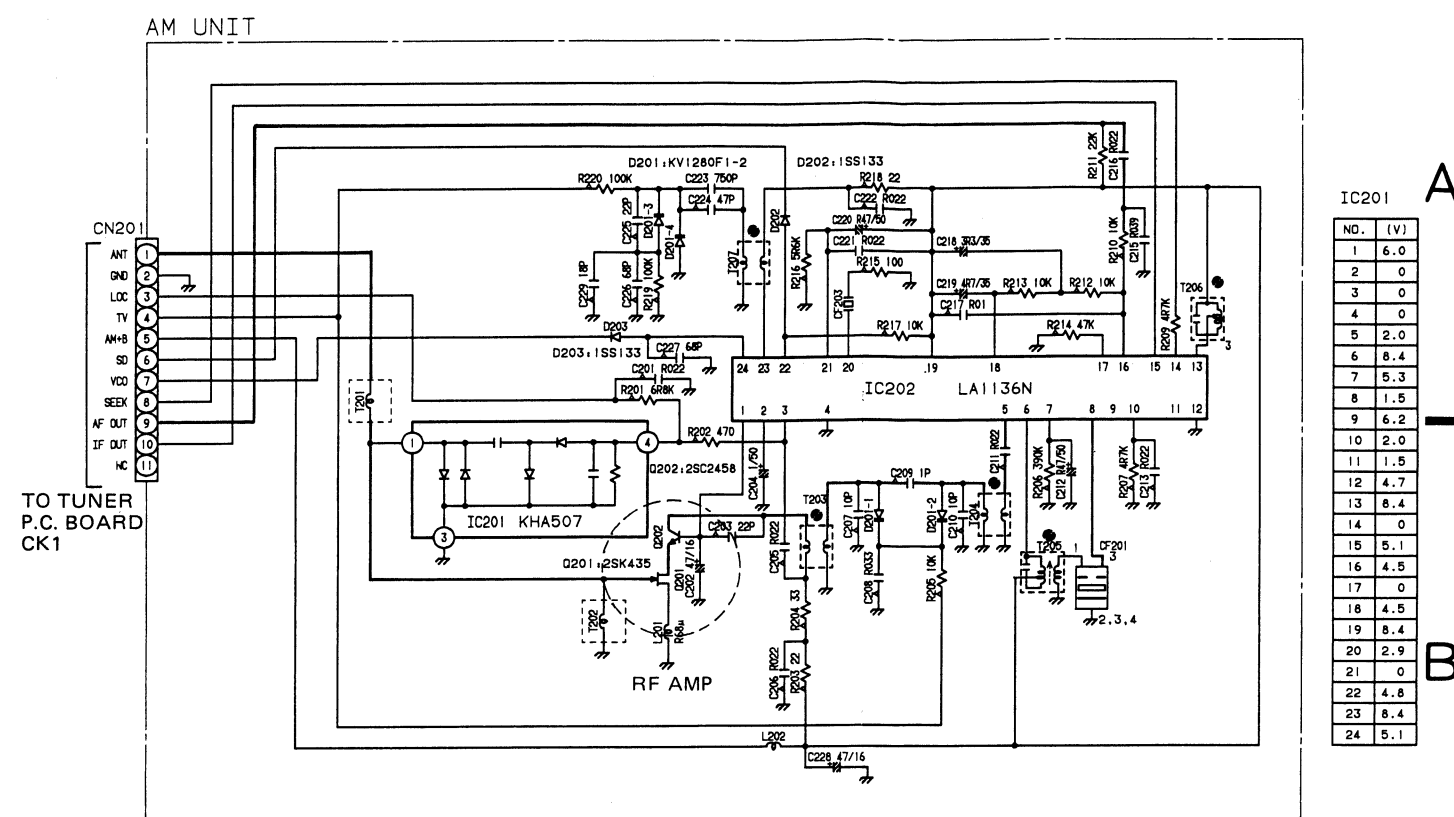


Fig. 63

10.10 AM UNIT



NOTE:





| | | |
|---|------------------------------|---|
|  | Indicates a chip capacitor. | Decimal points for resistor and capacitor fixed values are expressed as: 2.2→2R2 0.022→R022 |
|  | Indicates a chip resistor. | |
|  | Indicates a chip diode. | |
|  | Indicates a chip transistor. | |

Fig. 65

Fig. 65

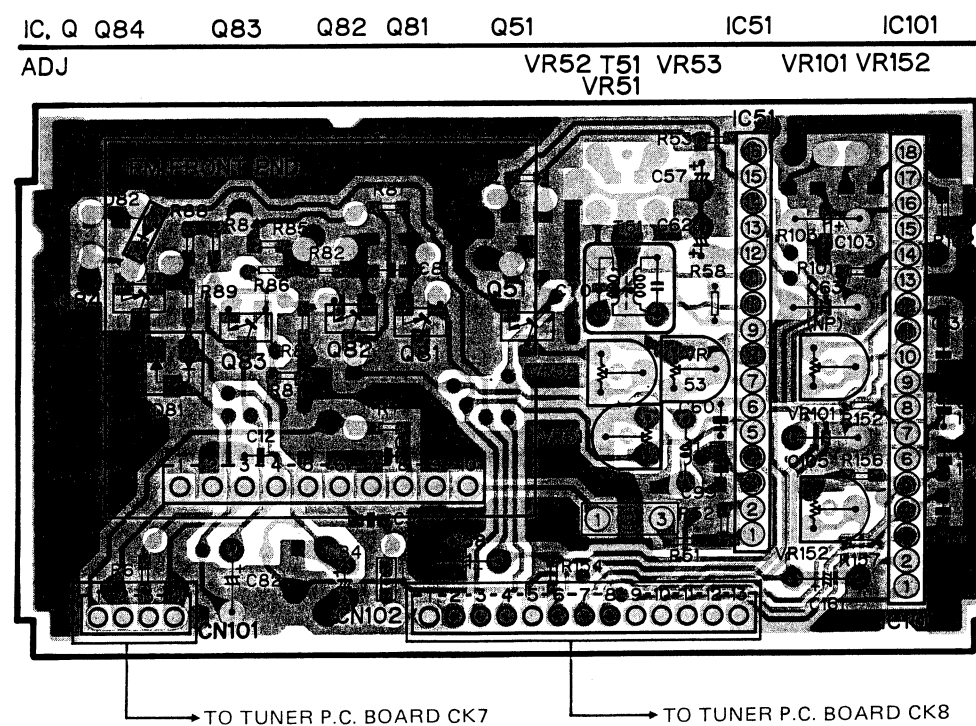


Fig. 64

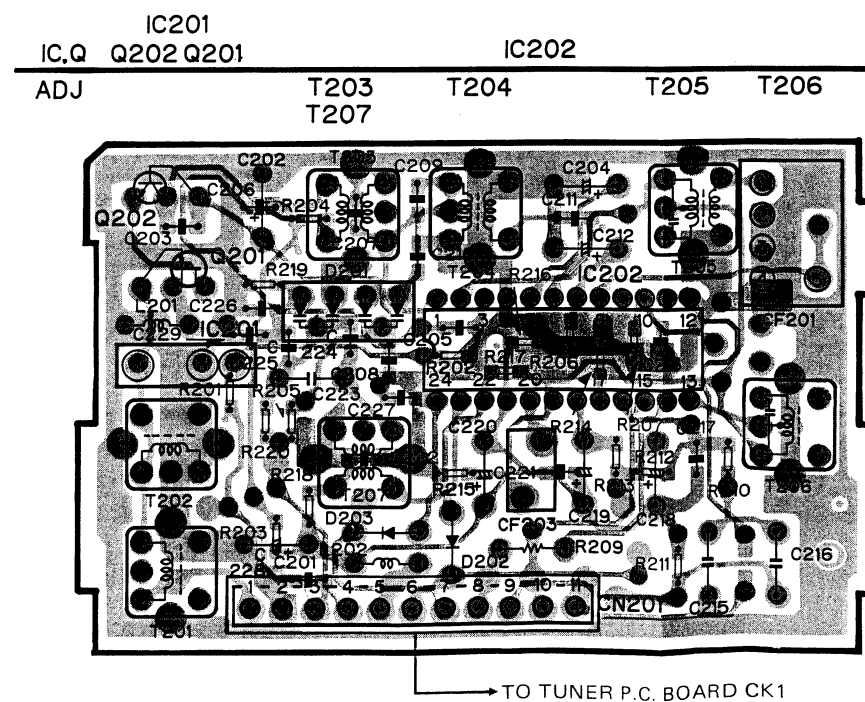


Fig. 66

10.11 AM STEREO UNIT

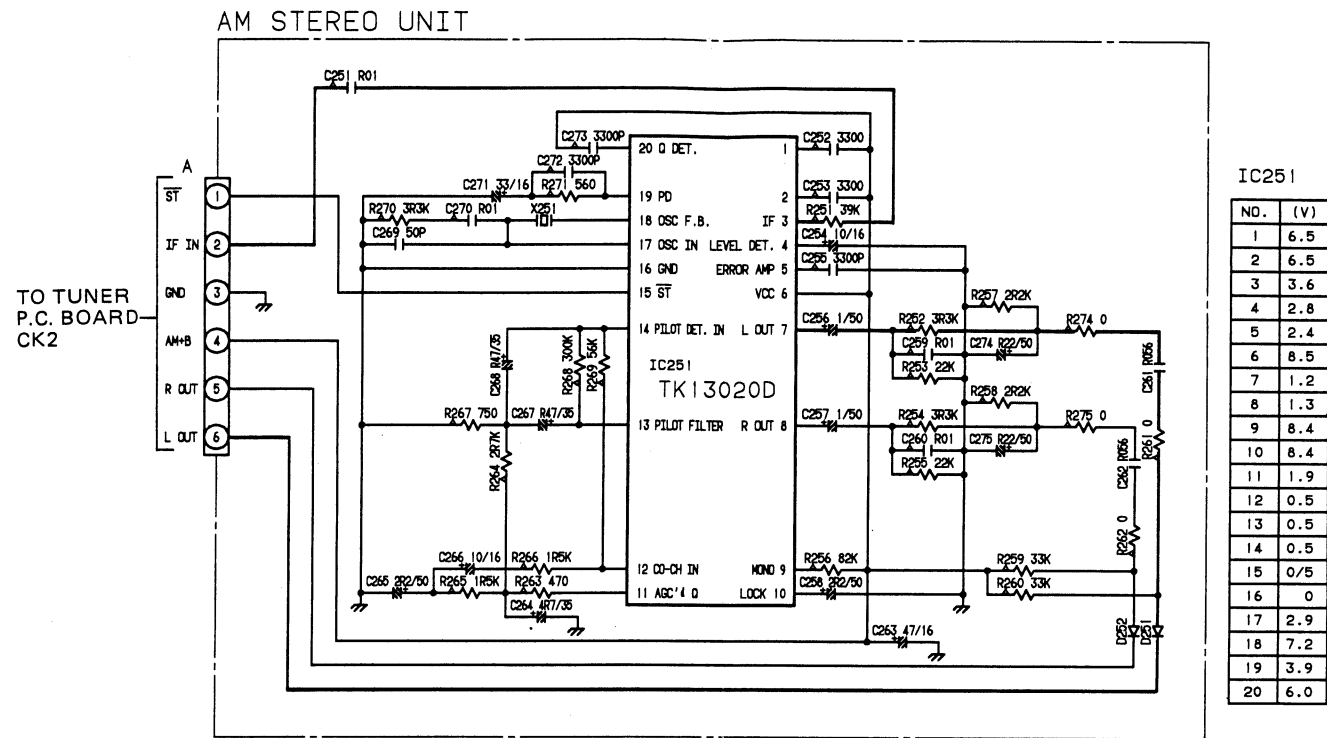


Fig. 67

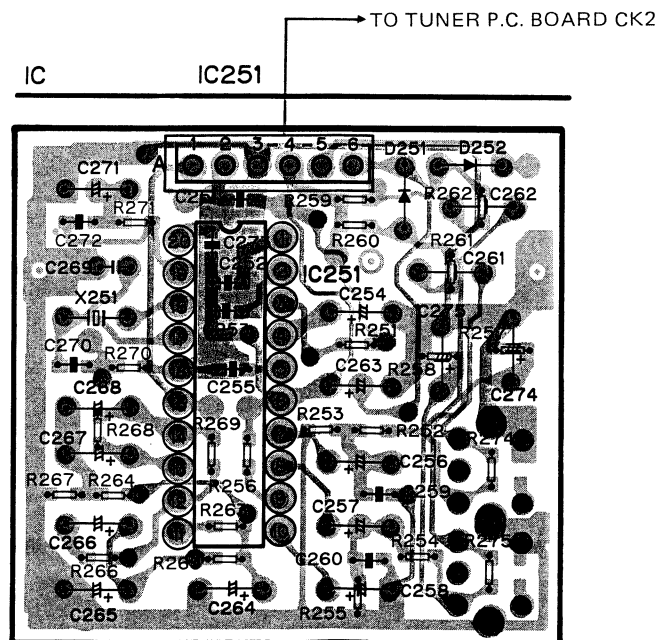


Fig. 68

11. CHASSIS EXPLODED VIEW (1)

- **Parts List**

NOTE:

- For your parts Stock Control, the fast moving items are indicated with the marks **‡‡** and **‡**.
‡‡ : GENERALLY MOVES FASTER THAN ‡.
This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
- Parts whose parts numbers are omitted are subject to being not supplied.
- Parts marked by “**◎**” are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

| Mark No. | Description | Part No. | Mark No. | Description | Part No. |
|----------|--------------------------------|--------------|-------------------------------------|-------------|--------------|
| | 1 Screw | BPZ26P080FMC | 29 Lens | | CNV1908 |
| ④ | 2 Key Board Unit (KEH-M9741ZT | CWM1586 | 30 Lens | | CNV1795 |
| | KEH-M9741ZT-02) | | 31 Conductor | | |
| ④ | Key Board Unit (KEH-9641ZT | CWM1585 | 32 Conductor Unit | | |
| | KEH-9641ZT-02) | | 33 Holder | | |
| ** | 3 Lamp | CEL1063 | * 34 Knob | | CAA1193 |
| | 4 Holder | CNV1906 | 35 Grille Assy (KEH-M9741ZT) | | CXA2949 |
| | 5 Rubber | CNV1888 | Grille Assy (KEH-M9741ZT-02) | | CXA2291 |
| | 6 Conductor | | Grille Assy (KEH-9641ZT) | | CXA2248 |
| ** | 7 Lamp | CEL1124 | Grille Assy (KEH-9641ZT-02) | | CXA2290 |
| | 8 Spacer | | * 36 Button (SCAN) | | CAC1565 |
| | 9 Spacer | | * 37 Button (1) | | CAC1566 |
| | 10 Sheet | | * 38 Button (2) | | CAC1567 |
| ** | 11 Lamp (KEH-M9741ZT | CEL1128 | * 39 Button (3) | | CAC1568 |
| | KEH-M9741ZT-02) | | * 40 Button (4) | | CAC1569 |
| | 12 Holder (KEH-M9741ZT | CNV1906 | * 41 Button (5) | | CAC1570 |
| | KEH-M9741ZT-02) | | * 42 Button (6) | | CAC1571 |
| ** | 13 Lamp | CEL1128 | ** 43 Lamp | | CEL1098 |
| | 14 Rubber | CNV1887 | 44 P. C. Board | | CNP1630 |
| | 15 Conductor | | 45 P. C. Board | | CNP1632 |
| * | 16 Button (EJECT) | CAC1689 | 46 P. C. Board | | CNP2180 |
| * | 17 Button (AM) | CAC1572 | 47 Holder | | CNV1587 |
| * | 18 Button (FM1/2) (KEH-M9741ZT | CAC1575 | 48 Lens | | CNV1580 |
| | KEH-M9741ZT-02) | | 49 Sheet | | CNM2420 |
| * | Button (FM1) (KEH-9641ZT | CAC1573 | 50 Plate | | |
| | KEH-9641ZT-02) | | 51 LCD | | CAW1044 |
| * | 19 Button (TAPE) (KEH-M9741ZT | CAC1576 | ④ 52 Volume Unit | | CWM1874 |
| | KEH-M9741ZT-02) | | 53 Connector | | CKS1525 |
| * | Button (FM2) (KEH-9641ZT | CAC1574 | ** 54 Volume | | CCS1106 |
| | KEH-9641ZT-02) | | 55 Nut | | CBA-066 |
| * | 20 Button (CD) (KEH-M9741ZT | CAC1680 | 56 Lens | | CNV1584 |
| | KEH-M9741ZT-02) | | 57 Sheet | | |
| * | Button (TAPE) (KEH-9641ZT | CAC1576 | * 58 Knob | | CAA1156 |
| | KEH-9641ZT-02) | | 59 Sheet | | CNM2362 |
| | 21 Spacer | | 60 Cover | | |
| | 22 Holder | CNV1996 | 61 Screw | | BMZ26P050FMC |
| * | 23 Button (TUNE) | CAC1700 | 62 Holder | | |
| | 24 Screw | PMS30P050FMC | ④ 63 Cassette Mechanism Assy | | CXK1685 |
| | 25 | | 64 Arm | | |
| | 26 Spring | CBH1214 | 65 Washer | | CBF-046 |
| | 27 Door (KEH-M9741ZT) | CAT1211 | 66 Cover (KEH-9641ZT KEH-9641ZT/02) | | |
| | Door (KEH-M9741ZT-02) | CAT1210 | 67 Connector | | CKS1529 |
| | Door (KEH-9641ZT) | CAT1209 | ** 68 Volume | | CCS1119 |
| | Door (KEH-9641ZT-02) | CAT1165 | 69 Holder | | |
| | 28 Lens | CNV1581 | 70 Spacer | | |

• Chassis (1)

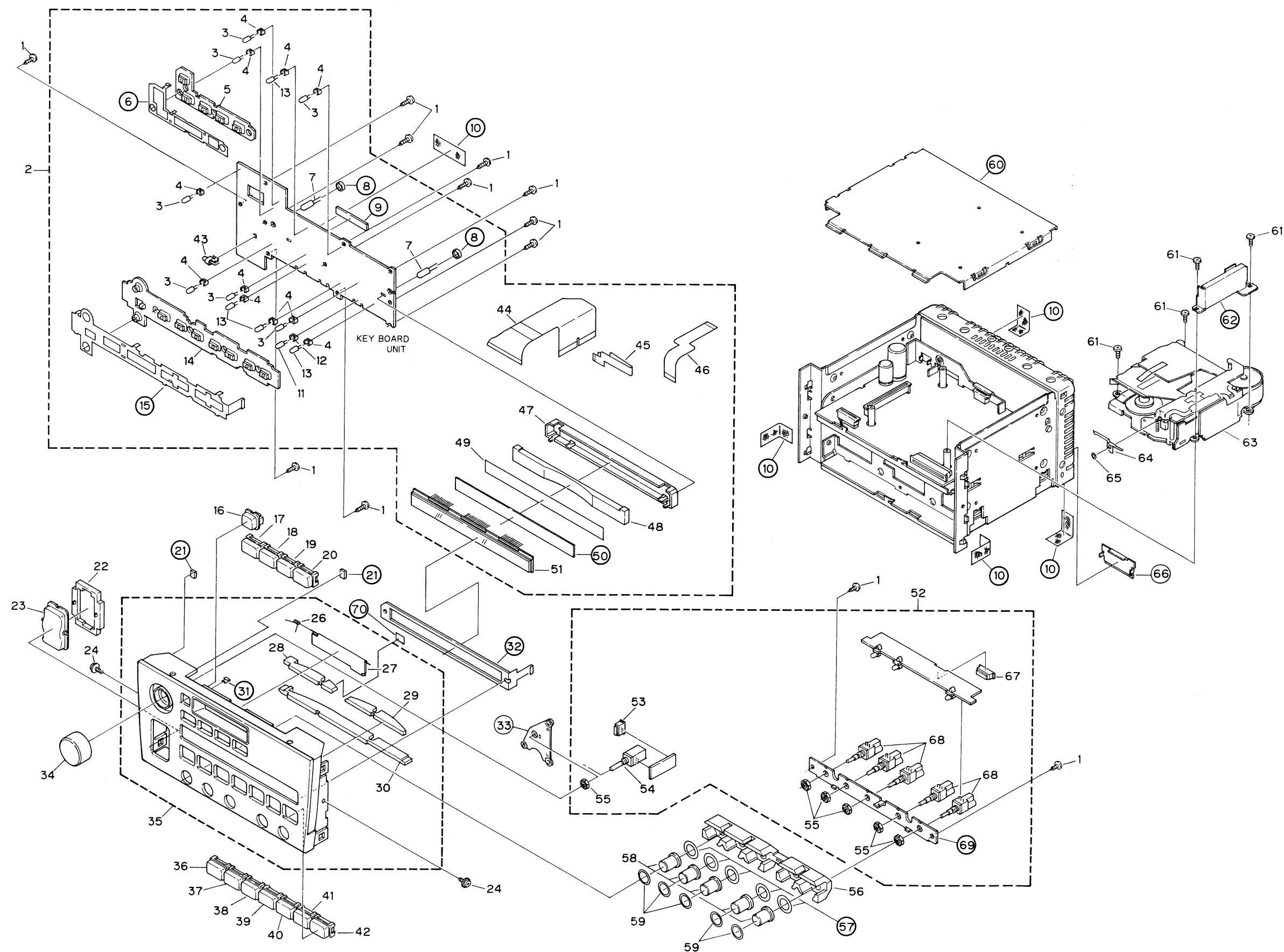


Fig. 69

12. CHASSIS EXPLODED VIEW (2)

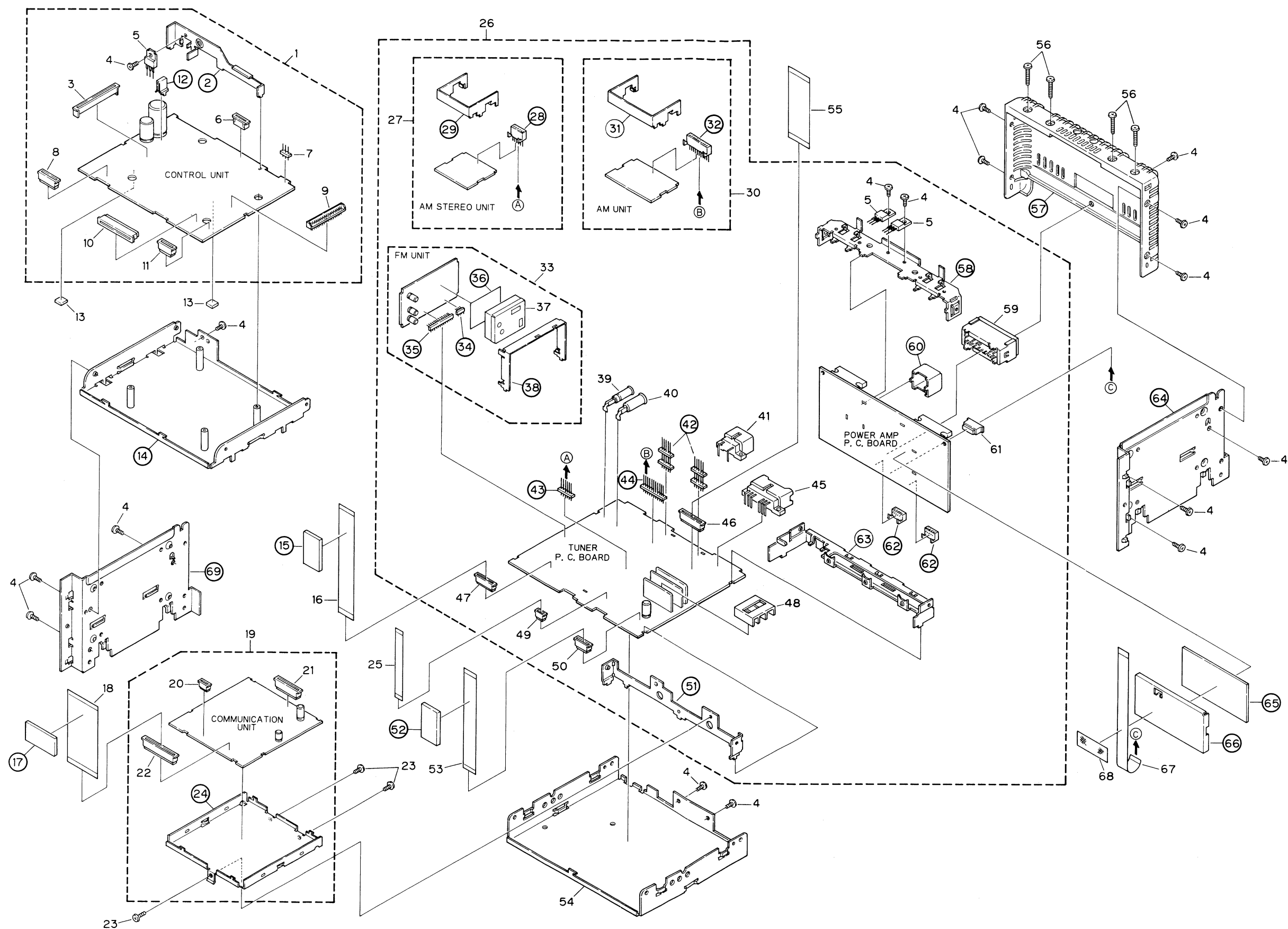


Fig. 70

• Parts List

| Mark No. | Description | Part No. | Mark No. | Description | Part No. |
|----------|---|--------------|----------|--|--------------|
| ① | 1 Control Unit (KEH-M9741ZT KEH-M9741ZT-02) | CWM1571 | | 29 Holder | |
| ① | Control Unit (KEH-9641ZT KEH-9641ZT-02) | CWM1570 | ① | 30 AM Unit | CWA1021 |
| | 2 Holder | | | 31 Holder | |
| | 3 Connector | CKS1389 | | 32 Connector | |
| | 4 Screw | BMZ30P060FMC | ① | 33 FM Unit | CWE1131 |
| ** | 5 Transistor | 2SB942 | | 34 Connector | |
| | 6 Connector | CKS1561 | | 35 Connector | |
| | 7 Plug | CKS-291 | | 36 Insulator | |
| | 8 Connector | CKS1567 | | 37 FM Front End | CWB1039 |
| | 9 Plug | CKS-659 | | 38 Holder | |
| | 10 Connector (KEH-M9741ZT KEH-M9741ZT-02) | CKS1551 | | 39 Antenna Jack | CKX1005 |
| | 11 Connector (KEH-9641ZT KEH-9641ZT-02) | CKS1563 | | 40 Antenna Jack | CKX1006 |
| | 12 Holder | | | 41 Connector | CKM1048 |
| | 13 Cushion | CNM2374 | | 42 Plug | |
| | 14 Chassis Assy | | | 43 Plug | |
| | 15 Cushion | | | 44 Plug | |
| | 16 Connector | CDE1948 | | 45 Connector (KEH-M9741ZT KEH-M9741ZT-02) | CKM1025 |
| | 17 Cushion (KEH-M9741ZT KEH-M9741ZT-02) | | | 46 Connector (KEH-M9741ZT KEH-M9741ZT-02) | CKS1573 |
| | 18 Connector (KEH-M9741ZT KEH-M9741ZT-02) | CDE1950 | | 47 Connector | CKS1567 |
| ① | 19 Communication Unit (KEH-M9741ZT KEH-M9741ZT-02) | CWM1566 | | 48 Holder | CNV2155 |
| | 20 Connector (KEH-M9741ZT KEH-M9741ZT-02) | CKS1557 | | 49 Connector (KEH-M9741ZT KEH-M9741ZT-02) | CKS1557 |
| | 21 Connector (KEH-M9741ZT KEH-M9741ZT-02) | CKS1573 | | 50 Connector (KEH-9641ZT KEH-9641ZT-02) | CKS1567 |
| | 22 Connector (KEH-M9741ZT KEH-M9741ZT-02) | CKS1583 | | 51 Holder | |
| | 23 Screw (KEH-M9741ZT KEH-M9741ZT-02) | BMZ30P060FMC | | 52 Cushion (KEH-9641ZT KEH-9641ZT-02) | |
| | 24 Case (KEH-M9741ZT KEH-M9741ZT-02) | | | 53 Connector (KEH-9641ZT KEH-9641ZT-02) | CDE1949 |
| | 25 Connector (KEH-M9741ZT KEH-M9741ZT-02) | CDE2194 | | 54 Chassis | |
| ① | 26 Tuner Amp Unit (KEH-M9741ZT) | CWM1832 | | 55 Connector (KEH-M9741ZT KEH-M9741ZT-02) | CDE2193 |
| ① | Tuner Amp Unit (KEH-M9741ZT-02) | CWM1558 | | 56 Screw | BMZ30P120FMC |
| ① | Tuner Amp Unit (KEH-9641ZT) | CWM1831 | | 57 Heat Sink | |
| ① | Tuner Amp Unit (KEH-9741ZT-02) | CWM1557 | | 58 Holder | |
| ① | 27 AM Stereo Unit | CWA1025 | | 59 Connector | CKM1047 |
| | 28 Connector | | | 60 Shield Case | |
| | | | | 61 Connector | CKS1561 |
| | | | | 62 Connector | |
| | | | | 63 Holder | |
| | | | | 64 Side Panel | |
| | | | | 65 Cushion | |
| | | | | 66 Holder | |
| | | | | 67 Connector | CDE1952 |
| | | | | 68 Sheet | |
| | | | | 69 Side Plate | |

13. CASSETTE MECHANISM ASSY EXPLODED VIEW

• Parts List

| Mark | No. | Description | Part No. | Mark | No. | Description | Part No. |
|------|-----|---------------------------|--------------|------|-----|--------------------------------------|--------------|
| | 1 | Screw (M1.4 × 1.4) | HBA-147 | | 46 | Screw | PMS26P025FMC |
| | 2 | Screw | BMZ20P040FMC | | 47 | Spring | CBH-830 |
| | 3 | Bush | CLB-663 | | 48 | Screw (M2 × 2.5) | HBA-175 |
| | 4 | Spring | CBE-119 | | 49 | Spacer | |
| | 5 | Spring | CBH-867 | | 50 | Spring | CBL1050 |
| | 6 | Spring | CBH-837 | | 51 | Washer | CBF1025 |
| | 7 | Arm | CNC2373 | | 52 | Washer | CBF-126 |
| | 8 | Holder Unit | CXA2821 | | 53 | Spring | CBH-893 |
| | 9 | Gear Unit | CXA2088 | | 54 | Collar | CLA1110 |
| | 10 | Washer | CBF1026 | | 55 | Screw | BMZ20P025FMC |
| | 11 | Gear | CNY-271 | | 56 | Gear | CNV1616 |
| | 12 | Washer | CBF-126 | | 57 | Collar | CLA1238 |
| | 13 | Spring | CBH-835 | | 58 | Flywheel | CNV1572 |
| | 14 | E Type Washer | CBG1003 | ** | 59 | Belt | CNT-111 |
| | 15 | Spring | CBH1277 | | 60 | Insulator | |
| ** | 16 | Pinch Roller Unit | CXA2608 | | 61 | Insulator | |
| | 17 | Spring | CBH1197 | | 62 | Cover | |
| | 18 | E Type Washer | YE25FUC | | 63 | Screw | BMZ20P030FMC |
| | 19 | Arm | CNV1254 | | 64 | Screw (M1.7 × 5.5) | CBA-172 |
| | 20 | Washer | CBF1022 | | 65 | Holder | |
| | 21 | Collar | CNW-932 | | 66 | Screw (M2 × 25) | CBA-165 |
| | 22 | Spring | CBH-827 | | 67 | Guide | |
| ** | 23 | Reel Unit | CXA2089 | | 68 | Spacer | |
| | 24 | Spring | CBH-868 | | 69 | Switch | CSN1005 |
| | 25 | Bracket Unit | CXA1481 | ** | 70 | Motor Unit (FF/REW. Head Positio) | CXA2429 |
| | 26 | F/R Gear | CNW-944 | | 71 | Screw | HBA-174 |
| | 27 | Screw | CBA1106 | | 72 | Bracket Unit | |
| ** | 28 | Switch (70 μ S. CST IN) | CSN1003 | | 73 | Pinch Roller Unit | CXA2609 |
| | 29 | Screw (M1.7 × 5.5) | CBA1025 | | 74 | Screw (M2 × 2.5) | CBA1037 |
| | 30 | P. C. Board | | | 75 | Pulley | CNV1255 |
| ** | 31 | Switch (CST SET) | CSN-089 | | 76 | Belt | CNT1010 |
| | 32 | Screw (M1.7 × 3) | CBA-186 | ** | 77 | | |
| | 33 | Magnetic Resistive Device | SDME106B | | 78 | | |
| | 34 | Washer | CBF-046 | | 79 | Pulley | CNV1256 |
| | 35 | Spring | CBH-887 | | 80 | Screw (M2 × 5) | CBA1054 |
| | 36 | Spring | CBH-886 | | 81 | Bracket Unit | |
| | 37 | Gear | CNV1075 | | 82 | Cover | |
| | 38 | Screw (M2 × 5) | CBA1054 | | 83 | Screw (M1.4 × 8) | CBA1055 |
| | 39 | Arm Unit | CXD-389 | | 84 | Spring | CBE-114 |
| | 40 | Arm | | | 85 | Azimuth Rubber | CNY-134 |
| | 41 | Washer | HBF-179 | ** | 86 | Head Unit | CXA2490 |
| | 42 | Lever | CNV1257 | | 87 | Spring | CBH-829 |
| | 43 | Spring | CBH1196 | | 88 | Gear | CNW-939 |
| ** | 44 | Motor (Capstan) | CXM1007 | | 89 | E Type Washer | YE12FUC |
| | 45 | Chassis Unit | | | 90 | Gear | CNV1262 |

14. ELECTRICAL PARTS LIST

- NOTE:
- For your parts Stock Control, the fast moving items are indicated with the marks ** and *.
 - ** : GENERALLY MOVES FASTER THAN *.
 - This classification shall be adjusted by each distributor because it depends on model number, temperature, humidity, etc.
 - Parts whose parts numbers are omitted are subject to being not supplied.
 - The part numbers shown below indicate chip components.
- Chip Resistor
RS1/8S□□□J, RS1/10S□□□J
- Chip Capacitor (except for CQS.....)
CKS....., CCS....., CSZS.....

| | | | | | | | | | | |
|---------------------|----------------------|---------|---------------------|-----------|---------|----------|--|--|--|--------------|
| Unit Number : | CAPACITORS | | | | | | | | | |
| Unit Name : AM Unit | | | | | | | | | | |
| MISCELLANEOUS | | | | | | | | | | |
| Mark ===== | Circuit Symbol & No. | | ==== | Part Name | | Part No. | | | | |
| ----- | | | | | | | | | | |
| | C | 201 205 | 206 211 213 221 222 | | | | | | | CKSQYB223K25 |
| | C | 202 228 | | | | | | | | CEA470M16LS |
| | C | 203 226 | | | | | | | | CCSQCH220J50 |
| ** IC 201 | | | | C | 204 | | | | | CEA010M50LS2 |
| ** IC 202 | | | | C | 207 210 | | | | | CCSQCH100D50 |
| ** Q 201 | | | | | | | | | | |
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| ** Q 202 | | | | | | | | | | |
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| * D 201 | | | | | | | | | | |
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|-----------------------|----------------------|------|--------------|----------|---|----------------------|-------------------|-----------------|----------|
| Mark ===== | Circuit Symbol & No. | ==== | Part Name | Part No. | Mark ===== | Circuit Symbol & No. | ==== | Part Name | Part No. |
| ----- | | | | | ----- | | | | |
| R 268 | | | RS1/10S304J | | R 88 | | | RS1/10S105J | |
| R 269 | | | RS1/10S563J | | R 101 | | | RS1/10S332J | |
| R 270 | | | RS1/10S332J | | R 102 | | | RS1/10S392J | |
| R 271 | | | RS1/10S561J | | R 103 | | | RS1/10S183J | |
| CAPACITORS | | | | | R 152 | | | RS1/10S203J | |
| | | | | | R 154 | | | RS1/10S223J | |
| Mark ===== | Circuit Symbol & No. | ==== | Part Name | Part No. | R 156 157 | | | RS1/10S272J | |
| ----- | | | | | CAPACITORS | | | | |
| C 251 259 260 270 | | | CKSQYB103K50 | | Mark ===== | Circuit Symbol & No. | ==== | Part Name | Part No. |
| C 252 253 255 272 273 | | | CKSQYB332K50 | | ----- | | | | |
| C 254 266 | | | CEA100M16LS2 | | C 1 | | | CKSQYB103K50 | |
| C 256 257 | | | CEA010M50LS2 | | C 3 12 | | | CKSQYB102K50 | |
| C 258 265 | | | CEA2R2M50LS2 | | C 57 62 | | | CEA010M50LS | |
| | | | | | C 60 99 132 | | | CKSQYF473Z50 | |
| C 261 262 | | | QOMA563J50 | | C 63 | | | CEA4R7M16NPLL | |
| C 263 | | | CEA470M16LS | | | | | | |
| C 264 | | | CEA4R7M35LS | | C 70 | | | CCSQCH180J50 | |
| C 267 268 | | | CSZAR47M35 | | C 81 | | | CKSYB104K25 | |
| C 269 | | | CCG-106 | | C 82 | | | CEA010M50LS2 | |
| | | | | | C 84 | | 33 μ F/2V | CH1055 | |
| C 271 | | | CEA330M16LS | | C 103 105 | | | CEA470M16LS | |
| C 274 275 | | | CEAR15M50LS2 | | | | | | |
| Unit Number : | | | | | C 154 | | | CKSQYB472K50 | |
| Unit Name : FM Unit | | | | | C 158 | | | CEA0R1M50LS2 | |
| MISCELLANEOUS | | | | | C 159 160 | | | CKSQYB273K50 | |
| Mark ===== | Circuit Symbol & No. | ==== | Part Name | Part No. | C 161 | | | CEA101M10LS | |
| ----- | | | | | Unit Number : | | | | |
| ** IC 51 | | | KHA141A | | Unit Name : Communication Unit (KEH-M9741ZT KEH-M9741ZT-02) | | | | |
| ** IC 101 | | | KHA146 | | MISCELLANEOUS | | | | |
| ** Q 51 | Chip Transistor | | DTC124EK | | Mark ===== | Circuit Symbol & No. | ==== | Part Name | Part No. |
| ** Q 81 84 | Chip Transistor | | 2SA1162 | | ----- | | | | |
| ** Q 82 83 | Chip Transistor | | 2SC3295 | | ** IC 751 | | | PD5094 | |
| | | | | | ** IC 752 | | | MSM82C51A-2RS-H | |
| * D 81 | Chip Diode | | MA153-MC | | ** IC 753 | | | CWV1002 | |
| * D 82 | Chip Diode | | MA151K-MH | | ** IC 755 | | | ON3111 | |
| L 11 | Chip Inductor | | CTF1086 | | ** Q 751 | | | DTC114ES | |
| L 51 | Inductor | | LAU150K | | | | | | |
| T 51 | Coil | | CTC1029 | | ** Q 752 | | | DTA114ES | |
| | | | | | ** Q 753 836 | | | 2SD1859 | |
| CF 51 | Ceramic Filter | | CTF-182 | | * D 751 752 | | | ERA15-02VH | |
| ** VR 51 | Semi-fixed 22kΩ (B) | | VRTB4VS223 | | * D 836 | | | 1SS133 | |
| ** VR 52 | Semi-fixed 10kΩ (B) | | VRTB4VS103 | | * D 837 | | | RD9R1JSB1 | |
| ** VR 53 | Semi-fixed 33kΩ (B) | | VRTB4VS333 | | L 751 | | Ferri-Inductor | CTF-157 | |
| ** VR 101 152 | Semi-fixed 15kΩ (B) | | VRTB4VS153 | | L 836 837 | | Coil | CTF1070 | |
| FM Front End | | | | | IB 751 | | | CWW1271 | |
| | | | | | IB 752 756 | | | CWW1240 | |
| RESISTORS | | | | | IB 753 | | | CWW1230 | |
| Mark ===== | Circuit Symbol & No. | ==== | Part Name | Part No. | IB 754 755 | | | CWW1241 | |
| ----- | | | | | X 751 | | Ceramic Resonator | CSS1051 | |
| R 6 52 | | | RS1/10S331J | | RESISTORS | | | | |
| R 7 | | | RS1/10S103J | | Mark ===== | Circuit Symbol & No. | ==== | Part Name | Part No. |
| R 51 72 | | | RS1/10S0R0J | | ----- | | | | |
| R 53 | | | RS1/10S472J | | R 753 755 757 759 761 763 765 767 768 769 | | | RS1/10S102J | |
| R 58 | | | RS1/10S332J | | R 760 770 771 794 | | | RS1/10S102J | |
| | | | | | R 772 789 792 | | | RS1/10S473J | |
| R 81 82 89 | | | RS1/10S223J | | R 773 | | | RD1/4PS103JL | |
| R 83 | | | RS1/10S222J | | R 774 | | | RD1/4PS223JL | |
| R 84 | | | RS1/10S272J | | | | | | |
| R 85 87 | | | RS1/10S182J | | | | | | |
| R 86 | | | RS1/10S680J | | | | | | |

• Cassette Mechanism Assy

| Mark | No. | Description | Part No. |
|------|-----|-----------------|----------|
| | 91 | Holder Assy | CXA1546 |
| | 92 | Spring | CBH1276 |
| | 93 | Arm | CNV1495 |
| | 94 | E Type Washer | YE15FUC |
| | 95 | P. C. Board | CNP1227 |
| | 96 | P. C. Board | CNP1738 |
| | 97 | P. C. Board | CNP1737 |
| | 98 | Connector (6P) | CKS1075 |
| | 99 | Connector (4P) | CKS1073 |
| | 100 | | |
| | 101 | Arm | CNH-004 |
| | 102 | Holder Assy | CXA1548 |
| | 103 | Screw (M2×2) | HBA-209 |
| | 104 | Connector (20P) | CKS-678 |
| | 105 | Screw (M2×2×3) | CBA1022 |
| * | 106 | Diode | 1S1555 |
| | 107 | P. C. Board | CNP1737 |
| | 108 | Arm | CNV1253 |
| | 109 | Screw (M2×7) | CBA1060 |
| | 110 | Screw (M2×4) | CBA1015 |
| | 111 | Screw (M2×2.5) | CBA1041 |
| | 112 | Insulator | |

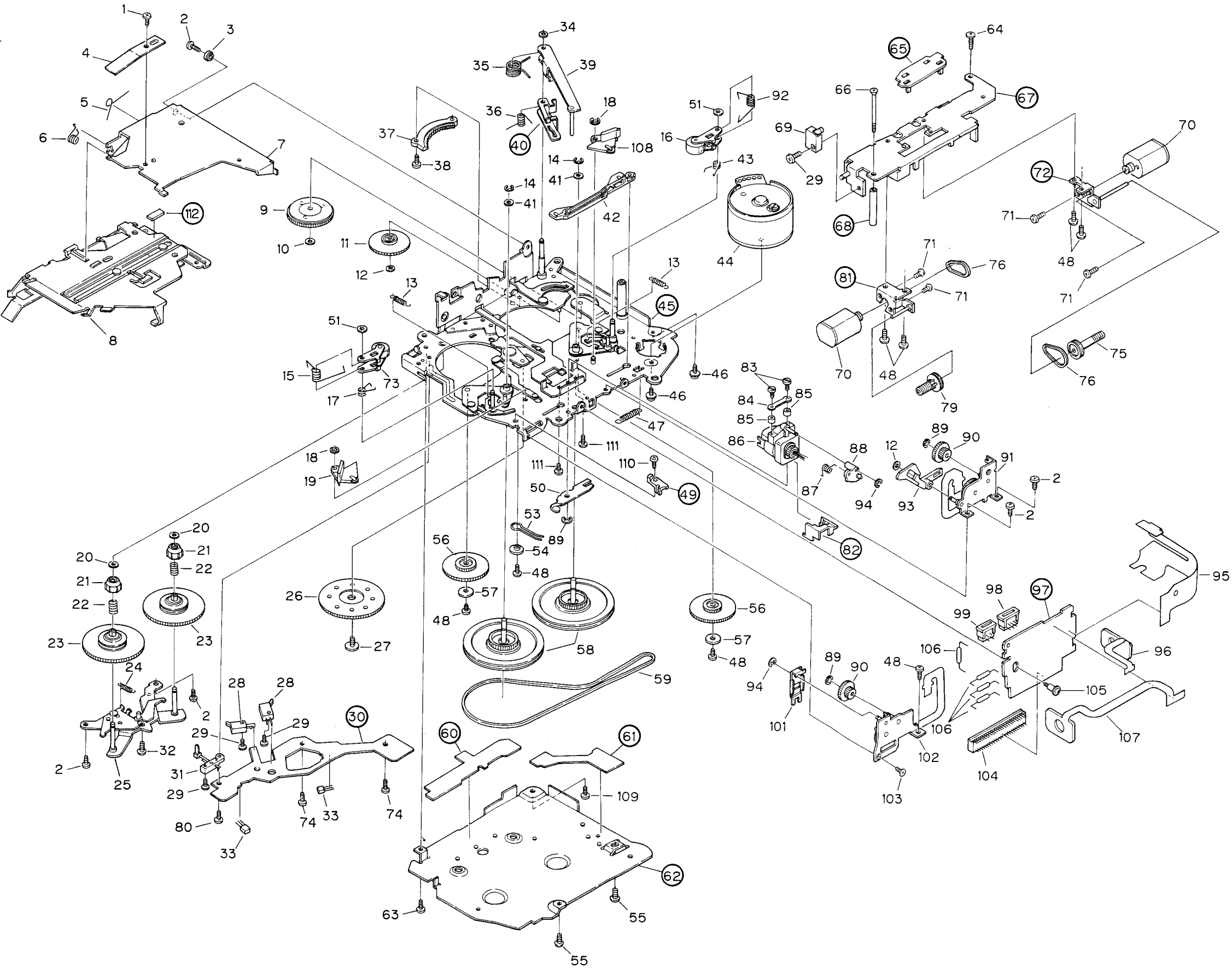


Fig. 71

| Mark | ==== | Circuit Symbol & No. | ==== | Part Name | Part No. | Mark | ==== | Circuit Symbol & No. | ==== | Part Name | Part No. |
|--------------------------|------|---------------------------------|------|-----------|--------------|------|---|----------------------|------|------------------------------|--------------|
| R | 775 | 799 | | | RD1/2PS121JL | * | D | 811 | | | RD6R2JSB1 |
| R | 776 | | | | RD1/4PS222JL | * | D | 812 | | | ERA15-02VH |
| R | 777 | | | | RD1/4PS331JL | * | D | 813 | | | HZ6LB1 |
| R | 778 | | | | RD1/4PS562JL | * | D | 814 | | | RD5R6JSB2 |
| R | 784 | | | | RD1/4PS682JL | * | D | 853 | | | RD5R1JSB1 |
| R | 785 | 786 787 | | | RD1/4PS122JL | L | 701 | | | Ferri-Inductor | CTF-157 |
| R | 790 | | | | RS1/10S471J | L | 702 | | | Ferri-Inductor | LAU150K |
| R | 791 | | | | RS1/10S105J | IB | 701 | | | | CWW1048 |
| R | 793 | | | | RD1/4PS473JL | IB | 702 703 | | | | CWW1230 |
| R | 795 | 796 837 | | | RD1/4PS102JL | IB | 704 | | | | CWW1231 |
| R | 797 | 798 836 | | | RD1/4PS471JL | | | | | | |
| CAPACITORS | | | | | | | | | | | |
| C | 751 | 772 | | | CKSYB473K50 | ** | VR | 501 502 | | Crystal Resonator | CWW1233 |
| C | 752 | 754 758 | | | CKSQYB102K50 | | | | | Semi-fixed 470Ω (B) | CWW1153 |
| C | 755 | 756 | | | CCSQCH101J50 | | | | | | CWW1126 |
| C | 757 | | | | CCSQCH330J50 | | | | | | CWW1232 |
| C | 773 | | | | CEA101M10LS | | | | | | CSS1029 |
| C | 774 | | | | CASA010M16 | | | | | | VRTB6VS471 |
| C | 836 | | | | CEA470M16LS | | | | | | |
| C | 837 | 839 | | | CKPY103M16L | | | | | | |
| C | 838 | | | | CEA221M10L2 | | | | | | |
| Unit Number : | | | | | | | | | | | |
| Unit Name : Control Unit | | | | | | | | | | | |
| MISCELLANEOUS | | | | | | | | | | | |
| ** | IC | 501 | | | KHA147A | R | 720 | | | (KEH-9641ZT KEH-9641ZT-02) | RD1/4PS0R0JL |
| ** | IC | 701 | | | PD4167B | R | 721 722 723 724 725 726 727 819 821 823 | | | | RD1/4PS222JL |
| ** | IC | 702 | | | PDH001 | R | 733 | | | (KEH-M9741ZT KEH-M9741ZT-02) | RD1/4PS104JL |
| ** | IC | 703 | | | M51957BL | R | 733 | | | (KEH-9641ZT KEH-9641ZT-02) | RD1/4PS0R0JL |
| ** | IC | 704 | | | CWW1001 | R | 736 815 816 817 931 932 934 938 942 943 | | | | RS1/10S104J |
| ** | IC | 705 | | | TC4028BP | R | 737 739 741 743 745 746 747 748 749 923 | | | | RS1/10S102J |
| ** | IC | 706 812 851 | | | DT5C144E | R | 744 922 925 | | | | RS1/10S471J |
| ** | IC | 707 708 | | | MB88306P | R | 811 | | | | RD1/4PS223JL |
| ** | IC | 709 | | | TC35095P | R | 812 | | | | RS1P150JL |
| ** | IC | 710 | | | CWW1178 | R | 825 851 852 933 961 962 966 | | | | RD1/4PS222JL |
| ** | IC | 811 | | | KHA241 | R | 826 828 832 926 939 950 951 952 953 954 | | | | RD1/4PS102JL |
| ** | Q | 501 703 831 832 833 852 867 869 | | | DTC144ES | R | 859 860 863 864 865 | | | | RD1/4PS8R2JL |
| ** | Q | 502 | | | DTA144ES | R | 861 862 | | | | RD1/4PS9R1JL |
| ** | Q | 701 702 816 817 | | | 2SC2458 | R | 866 | | | (KEH-M9741ZT KEH-M9741ZT-02) | RD1/4PS130JL |
| ** | Q | 811 | | | 2SB942 | R | 867 | | | | RD1/4PS6R8JL |
| ** | Q | 812 | | | 2SC3474 | R | 868 | | | | RD1/4PS221JL |
| ** | Q | 813 | | | 2SD1859 | R | 872 | | | | RD1/4PS473JL |
| ** | Q | 814 815 | | | DTC144TS | R | 924 927 928 929 | | | | RS1/10S102J |
| ** | Q | 818 819 825 830 868 | | | 2SB1243 | R | 936 | | | | RS1/10S223J |
| ** | Q | 823 824 | | | DTB133HV | R | 940 941 | | | | RD1/4PS104JL |

CAPACITORS

Mark ===== Circuit Symbol & No. === Part Name Part No.

C 501 502 CKPYB681K50L
C 503 504 CEANL4R7M35LL
C 505 506 718 719 CEA470M6R3LS
C 507 508 CEA010M50NPLL
C 509 CEA010M50LS2

C 510 CEA221M10L2
C 511 CEA470M16L2
C 512 CEA101M10LS
C 701 702 CCSOCH330J50
C 703 716 813 818 822 824 835 875 CKSYB473K50

C 704 705 CASA010M16
C 706 712 713 717 CKSQYF473Z25
C 707 CEAR22M50L2
C 708 CEANL3R3M50LL
C 709 CQEA223J50

C 710 COMA103J50LL
C 714 715 817 832 851 950 953 954 CKPYY103M16L
C 720 833 834 955 CKSQYB103X50
C 811 470 μ F/16V CCH-114
C 812 816 CEA100M16L2
C 814 825 CEA010M50L2
C 815 4700 μ F/16V CCH1061
C 819 823 CEA101M10L2
C 820 2200 μ F/16V CCH1001
C 821 CEA470M16LS
C 874 CEA100M25L2

Unit Number :
Unit Name : Key Board Unit

MISCELLANEOUS

Mark ===== Circuit Symbol & No. === Part Name Part No.

** IC 901 LC7582P
** Q 901 902 903 2SD1226MF
** IL 901 903 904 905 918 Lamp 8V 60mA CEL1063
** IL 902 915 916 917 Lamp 8V 60mA CEL1128
** IL 908 911 Lamp 8V 100mA CEL1124
** IL 919 Lamp 8V 60mA CEL1098
** IL 920 921 Lamp 8V 60mA CEL1063
** IL 922 (KEH-M9741ZT KEH-M9741ZT-02) Lamp 8V 60mA CEL1128
LCD CAW1044

RESISTORS

Mark ===== Circuit Symbol & No. === Part Name Part No.

R 901 RD1/4PS473JL
R 902 903 904 905 RD1/4PS102JL
R 906 907 908 RD1/4PS8R2JL

CAPACITORS

Mark ===== Circuit Symbol & No. === Part Name Part No.

C 901 CKPYB681K50L
C 902 CKPYY103M16L
C 903 CKPYB102K50L

Unit Number :
Unit Name : Tuner Amp Unit

Tuner Amp Unit
Consists of
• Tuner P.C. Board
• Power Amp P.C. Board

MISCELLANEOUS

Mark ===== Circuit Symbol & No. === Part Name Part No.

** IC 25 KHA168
** IC 27 PA5011
** IC 451 CX-7925B
** IC 551 CWV1004
** IC 552 KHA163

** IC 553 (KEH-M9741ZT KEH-9641ZT) KHA222B
** IC 553 (KEH-M9741ZT-02 KEH-9641ZT-02) KHA249B
** IC 555 KHA233
** IC 556 (KEH-M9741ZT KEH-M9741ZT-02) KHA232A
** IC 601 602 TAB221H

** IC 603 KHA229
** IC 604 M51957BL
** Q 61 454 2SC3113
** Q 163 164 883 884 886 887 888 890 2SC2458
** Q 452 2SK330

** Q 456 457 878 879 880 DTA114ES
** Q 458 803 DTC124ES
** Q 551 2SC2872S
** Q 601 602 2SC3665
** Q 802 2SB1243

** Q 804 DTB114ES
** Q 876 877 2SC1740S
** Q 881 882 2SB842
** Q 885 2SA1048
** Q 889 891 2SD1859

* D 26 27 1SV99
* D 28 61 161 162 454 601 602 802 879 885 1SS133
* D 455 RD2R7ESB1
* D 551 RD5R1JSB2
* D 603 MA204WK

* D 876 878 5227LC
* D 877 SM-3-08LFEA
* D 880 RD8R2JSB2
* D 881 883 MTZ18JB
* D 884 887 MA206

* D 886 RD8R1JSB2
* D 889 HZ2CLL
* D 890 RD9R1JSB2
L 26 LAU18OM
L 451 Ferri-Inductor LAU18OK

L 876 Choke Coil CTH1169
L 877 Coil CTF-135
L 878 Coil CTH1170
T 26 Transformer CTC-195
CG 26 27 DSP-101M-S00B

CR 26
X 451 Crystal Resonator
** VR 551 Semi-fixed 10k Ω (B)
** FU 601 602 Fuse 6.3A

RESISTORS

| Mark | ==== | Circuit Symbol & No. | ==== | Part Name | Part No. |
|------|---|----------------------|------|-----------|--------------|
| R | 26 | | | | RD1/4PS681JL |
| R | 28 458 461 558 591 657 886 | | | | RD1/4PS102JL |
| R | 29 660 661 877 879 892 894 | | | | RD1/4PS223JL |
| R | 32 | | | | RD1/4PS0R0JL |
| R | 61 882 883 | | | | RD1/4PS104JL |
| R | 62 188 559 560 579 603 604 621 890 | | | | RD1/4PS103JL |
| R | 63 | | | | RD1/4PS123JL |
| R | 64 65 468 469 | | | | RD1/4PS0R0JL |
| R | 161 162 163 164 171 172 189 250 | | | | RD1/4PS222JL |
| R | 169 170 | | | | RD1/4PS333JL |
| R | 173 | | | | RD1/4PS100JL |
| R | 190 625 | | | | RD1/4PS391JL |
| R | 451 452 453 888 | | | | RD1/4PS471JL |
| R | 454 887 898 | | | | RD1/4PS332JL |
| R | 459 460 557 | | | | RD1/4PS272JL |
| R | 462 655 | | | | RD1/4PS152JL |
| R | 463 592 601 602 611 612 622 630 631 876 | | | | RD1/4PS472JL |
| R | 470 590 623 624 626 632 633 656 805 807 | | | | RD1/4PS473JL |
| R | 553 554 659 803 893 | | | | RD1/4PS222JL |
| R | 551 552 (KEH-M9741ZT KEH-M9741ZT-02) | | | | RD1/4PS272JL |
| R | 555 556 808 | | | | RD1/4PS562JL |
| R | 567 568 569 570 | | | | RD1/4PS823JL |
| R | 571 572 | | | | RD1/4PS152JL |
| R | 573 574 | | | | RD1/4PS182JL |
| R | 605 606 613 614 | | | | RD1/4PS122JL |
| R | 607 608 609 610 615 616 617 618 | | | | RD1/4PS2R2JL |
| R | 619 | | | | RD1/4PS153JL |
| R | 620 | | | | RD1/4PS331JL |
| R | 651 652 | | | | RD1/2PS010JL |
| R | 653 | | | | RD1/4PS682JL |
| R | 654 | | | | RD1/2PS181JL |
| R | 658 | | | | RS1P101JL |
| R | 662 664 804 806 | | | | RD1/4PS221JL |
| R | 663 | | | | RD1/4PS0R0JL |
| R | 665 | | | | RD1/4PS821JL |
| R | 809 | | | | RD1/4PS561JL |
| R | 880 | | | | RD1/4PS472JL |
| R | 881 | | | | RD1/4PS183JL |
| R | 884 | | | | RD1/4PS184JL |
| R | 885 | | | | RD1/4PS303JL |
| R | 887 | | | | RD1/4PS103JL |
| R | 889 896 | | | | RD1/4PS101JL |
| R | 891 895 899 | | | | RD1/4PS103JL |
| R | 897 | | | | RD1/4PS473JL |

CAPACITORS

| Mark | ==== | Circuit Symbol & No. | ==== | Part Name | Part No. |
|------|------------------------------------|----------------------|------|-----------|---------------|
| C | 26 32 34 62 64 163 166 170 171 186 | | | | CKPYY103M16L |
| C | 27 | | | | CCPCH100J50L |
| C | 28 63 568 569 570 609 610 623 624 | | | | CKPYB102K50L |
| C | 29 33 633 886 | | | | CEA100M16L2 |
| C | 30 552 | | | | CEA220M10L2 |
| C | 31 | | | | CKPYB471K50L |
| C | 61 324 452 456 590 591 806 | | | | CGCYX473K25 |
| C | 167 168 554 | | | | CEA010M50NPLL |
| C | 169 566 567 | | | | CEA101M10L2 |
| C | 185 | | | | CEAR15M50LS2 |

| Mark | ==== | Circuit Symbol & No. | ==== | Part Name | Part No. |
|------|-------------------------------------|----------------------|------|-----------|---------------|
| C | 451 465 466 | | | | CEA470M16L2 |
| C | 453 | | | | CGCYX103K25 |
| C | 454 | | | | CCCH180J50 |
| C | 455 | | | | CCCH090D50 |
| C | 459 | 4.7 μ F/16V | | | CCH1005 |
| C | 460 | | | | COMA103J50 |
| C | 461 | | | | CKCYB102K50 |
| C | 463 467 592 593 605 606 807 808 809 | | | | CKPYY103M16L |
| C | 464 | | | | CEA2R2M50LS2 |
| C | 551 553 | | | | CEA471M10L2 |
| C | 555 556 557 558 562 563 564 565 | | | | CQEA184J63 |
| C | 571 572 888 | | | | CEA2R2M35NPLL |
| C | 601 602 617 618 | | | | CEA2R2M35NPLL |
| C | 603 604 619 620 880 | | | | CEA2R2M50L2 |
| C | 607 608 621 622 | | | | CEA220M16L2 |
| C | 611 612 613 614 625 626 627 628 | | | | CQEA154J63 |
| C | 615 616 629 630 | 470 μ F/16V | | | CCH-114 |
| C | 631 632 | | | | CEA221M16L2 |
| C | 876 883 | 2200 μ F/16V | | | CCH1001 |
| C | 877 879 884 889 892 893 | | | | CGCYX473K25 |
| C | 878 | 1000 μ F/16V | | | CCH1003 |
| C | 885 | | | | CEA4R7M16NPLL |
| C | 890 | | | | CEA100M25L2 |
| C | 891 | | | | CEA101M16L2 |

Unit Number :

Unit Name : Volume Unit

| |
|----------------------|
| Volume Unit |
| Consists of |
| • Volume P.C Board A |
| • Volume P.C Board B |

| Mark | ==== | Circuit Symbol & No. | ==== | Part Name | Part No. |
|------|------------------------|----------------------|------|-----------|--------------|
| ** | IL 912 913 914 | Lamp 8V 40mA | | | CEL1114 |
| ** | VR 901 902 903 904 905 | Volume | | | CCS1119 |
| ** | VR 906/S 901 | Volume/Switch | | | CCS1106 |
| | R 913 | | | | RD1/4PS102JL |
| | C 904 | | | | CEA220M10LS |

Unit Number :

Unit Name : Switch P.C. Board

| Mark | ==== | Circuit Symbol & No. | ==== | Part Name | Part No. |
|------|--------|----------------------------|------|-----------|----------|
| ** | S 1 | Switch(CST SET) | | | CSN-089 |
| ** | S 2 3 | Switch(CST IN, 70 μ s) | | | CSN1003 |
| | MR 1 2 | Magnetic Resistive Device | | | SDME106B |

Unit Number :
Unit Name : P.C.Board Unit

| Mark | ===== ----- | Circuit Symbol & No. | ==== ----- | Part Name | Part No. |
|------|----------------|----------------------|---------------|-----------|----------|
| * D | 1 2 3 4 | | | | 1S1555 |

Miscellaneous Parts List

| Mark | ===== ----- | Circuit Symbol & No. | ==== ----- | Part Name | Part No. |
|-------|----------------|----------------------|---------------|---------------------------|----------|
| ** HD | 1 | | | Head Unit | CXA2490 |
| ** M | 1 2 | | | Motor Unit (Head, FF/REW) | CXM2429 |
| ** M | 3 | | | Motor (Capstan) | CXM1007 |
| ** S | 4 | | | Switch (Door) | CSN1005 |